CITATION REPORT List of articles citing

The MAPK signaling cascade

DOI: 10.1096/fasebj.9.9.7601337 FASEB Journal, 1995, 9, 726-735.

Source: https://exaly.com/paper-pdf/26167894/citation-report.pdf

Version: 2024-04-03

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
2319	Advanced glycation end product (AGE)-induced proliferation of HEL cells via receptor for AGE-related signal pathways. 1992 , 33, 493		8
2318	Combination treatment with arsenic trioxide and sulindac enhances apoptotic cell death in lung cancer cells via activation of oxidative stress and mitogen-activated protein kinases. 1994 , 20, 379		1
2317	Compartmentalized signal transduction by receptor tyrosine kinases. 1995 , 5, 465-70		129
2316	Switching to Rac and Rho. 1995 , 3, 1281-4		8
2315	Signal transduction of the gonadotropin releasing hormone (GnRH) receptor: cross-talk of calcium, protein kinase C (PKC), and arachidonic acid. 1995 , 15, 527-44		39
2314	RRR-alpha-tocopheryl succinate inhibits DNA synthesis and enhances the production and secretion of biologically active transforming growth factor-beta by avian retrovirus-transformed lymphoid cells. 1995 , 24, 171-85		28
2313	Participation of reactive oxygen species in the lysophosphatidic acid-stimulated mitogen-activated protein kinase kinase activation pathway. 1995 , 270, 28499-502		144
2312	The mitogen-activated protein kinase kinase MEK1 stimulates a pattern of gene expression typical of the hypertrophic phenotype in rat ventricular cardiomyocytes. 1995 , 270, 28092-6		129
2311	PD 098059 is a specific inhibitor of the activation of mitogen-activated protein kinase kinase in vitro and in vivo. 1995 , 270, 27489-94		2872
2310	Differential activation of mitogen-activated protein kinase and S6 kinase signaling pathways by 12-O-tetradecanoylphorbol-13-acetate (TPA) and insulin. Evidence for involvement of a TPA-stimulated protein-tyrosine kinase. 1995 , 270, 28325-30		41
2309	The glutathione S-transferase supergene family: regulation of GST and the contribution of the isoenzymes to cancer chemoprotection and drug resistance. 1995 , 30, 445-600		2578
2308	The Glut athione S-Transferase Supergene Family: Regulation of GST and the Contribution of the lsoenzymes to Cancer Chemoprotection and Drug Resistance Part II. 1995 , 30, 521-600		97
2307	Differential activation of extracellular signal-regulated kinase (ERK) 1, ERK2, p38, and c-Jun NH2-terminal kinase mitogen-activated protein kinases by bacterial peptidoglycan. 1996 , 174, 777-85		102
2306	Ethylene Biosynthesis and perception. 1996 , 15, 479-523		81
2305	Role of CAS, a human homologue to the yeast chromosome segregation gene CSE1, in toxin and tumor necrosis factor mediated apoptosis. 1996 , 35, 6891-9		78
2304	In vitro inhibition of MAP kinase (ERK1/ERK2) activity by phosphorylated glia maturation factor (GMF). 1996 , 35, 6283-8		46
2303	Mitogen-activated protein kinases in rat brain neuronal cultures are activated by angiotensin II type 1 receptors and inhibited by angiotensin II type 2 receptors. 1996 , 271, 15635-41		145

[1996-1996]

2302	Effects of 17 beta-estradiol and progesterone on mitogen-activated protein kinase expression and activity in rat uterine smooth muscle. 1996 , 300, 247-54	16
2301	Stimulation of mitogen activated protein kinase by LDL and oxLDL in human U-937 macrophage-like cells. 1996 , 385, 149-53	45
2300	The phosphorylation state of MAP-kinases modulates the cytotoxic response of smooth muscle cells to hydrogen peroxide. 1996 , 389, 285-8	21
2299	Activation-independent nuclear translocation of mitogen activated protein kinase ERK1 mediated by thiol-modifying chemicals. 1996 , 394, 34-8	6
2298	Ischemic preconditioning triggers the activation of MAP kinases and MAPKAP kinase 2 in rat hearts. 1996 , 396, 233-7	184
2297	Cyclic AMP stimulates the phosphorylation and activation of p42 and p44 mitogen-activated protein kinases in 3T3-F442A preadipocytes. 1996 , 224, 734-9	17
2296	Schiff base forming drugs: mechanisms of immune potentiation and therapeutic potential. 1996 , 74, 497-504	53
2295	A somatostatin analogue inhibits MAP kinase activation and cell proliferation in human neuroblastoma and in human small cell lung carcinoma cell lines. 1996 , 397, 164-8	42
2294	MADR1, a MAD-related protein that functions in BMP2 signaling pathways. 1996 , 85, 489-500	655
2293	Stimulation of protein synthesis by phosphatidic acid in rat cardiomyocytes. 1996 , 52, 1735-40	23
2292	Ca(2+)-dependent routes to Ras: mechanisms for neuronal survival, differentiation, and plasticity?. 1996 , 16, 233-6	238
2291	Coupling of the RAS-MAPK pathway to gene activation by RSK2, a growth factor-regulated CREB kinase. 1996 , 273, 959-63	1100
229 0	Activation of mitogen-activated protein kinase by H2O2. Role in cell survival following oxidant injury. 1996 , 271, 4138-42	878
2289	Ethanol and Hepatocellular Injury. 1996 , 16, 289-306	20
2288	. 1996,	49
2287	Effects of exercise and insulin on mitogen-activated protein kinase signaling pathways in rat skeletal muscle. 1996 , 271, E403-8	105
2286	Diversification of Neu differentiation factor and epidermal growth factor signaling by combinatorial receptor interactions 1996 , 15, 2452-2467	560
2285	Regulation of ERK (extracellular signal regulated kinase), part of the neurotrophin signal transduction cascade, in the rat mesolimbic dopamine system by chronic exposure to morphine or cocaine. 1996 , 16, 4707-15	276

2284	Differential regulation of the MAP, SAP and RK/p38 kinases by Pyst1, a novel cytosolic dual-specificity phosphatase 1996 , 15, 3621-3632	319
2283	ErbB-2 is a common auxiliary subunit of NDF and EGF receptors: implications for breast cancer 1996 , 15, 254-264	441
2282	The bradykinin B2 receptor is a delayed early response gene for platelet-derived growth factor in arterial smooth muscle cells. 1996 , 271, 13324-32	20
2281	The human CAS protein which is homologous to the CSE1 yeast chromosome segregation gene product is associated with microtubules and mitotic spindle. 1996 , 93, 2670-4	51
2280	Net (ERP/SAP2) one of the Ras-inducible TCFs, has a novel inhibitory domain with resemblance to the helix-loop-helix motif 1996 , 15, 5849-5865	67
2279	Stimulation of C2C12 myoblast growth by basic fibroblast growth factor and insulin-like growth factor 1 can occur via mitogen-activated protein kinase-dependent and -independent pathways. 1996, 16, 5964-73	104
2278	3pK, a novel mitogen-activated protein (MAP) kinase-activated protein kinase, is targeted by three MAP kinase pathways. 1996 , 16, 6687-97	157
2277	Analysis of the signaling pathway involved in the regulation of hexokinase II gene transcription by insulin. 1996 , 271, 16690-4	100
2276	Chapter 29. The MAP Kinase Family: New MAPsIfor Signal Transduction Pathways and Novel Targets for Drug Discovery. 1996 , 31, 289-298	13
2275	Requirement for phosphoinositide 3-OH kinase in growth hormone signalling to the mitogen-activated protein kinase and p70s6k pathways. 1996 , 315 (Pt 2), 517-22	64
2274	Signal-transducing protein phosphorylation cascades mediated by Ras/Rho proteins in the mammalian cell: the potential for multiplex signalling. 1996 , 318 (Pt 3), 729-47	447
2273	Insulin action in cultured human myoblasts: contribution of different signalling pathways to regulation of glycogen synthesis. 1996 , 320 (Pt 3), 871-7	84
2272	Effects of Ara-C on neutral sphingomyelinase and mitogen- and stress-activated protein kinases in T-lymphocyte cell lines. 1996 , 40, 709-19	8
2271	Dihydro-vitamin K1: primary food sources and estimated dietary intakes in the American diet. 1996 , 31, 715-20	34
2270	Genomic structure of carp mitogen-activated protein kinase kinase 1 gene. 1996 , 1306, 133-6	2
2269	Differential activation of ERK, JNK/SAPK and P38/CSBP/RK map kinase family members during the cellular response to arsenite. 1996 , 21, 771-81	179
2268	Signals for mesoderm induction. Roles of fibroblast growth factor (FGF)/mitogen-activated protein kinase (MAPK) pathway. 1996 , 1288, F1-7	3
2267	Endothelin-1-dependent signaling pathways in the myocardium. 1996 , 6, 87-94	23

2266	Intracellular Signaling in Arterial Smooth Muscle Migration versus Proliferation. 1996 , 6, 143-51	25
2265	Apoptosis: A Current Molecular Analysis. 1996 , 2, 117-131	43
2264	Regulation of connexin43 function by activated tyrosine protein kinases. 1996 , 28, 359-68	108
2263	Signal transduction and the u-PA/u-PAR system. 1996 , 10, 215-237	71
2262	Identification of a potential physiological substrate for oncogenic Ras-activated protein kinases in activated Xenopus egg extracts: correlation with oncogenic Ras-induced cell cycle arrest. 1996 , 169, 149-58	1
2261	Regulation of phospholipase D by tyrosine kinases. 1996 , 80, 103-16	64
2260	Covalent chemical events in immune induction: fundamental and therapeutic aspects. 1996 , 17, 436-41	44
2259	Mitogen-activated protein kinase cascades and regulation of gene expression. 1996 , 8, 402-11	682
2258	Effects of phorbol ester on phospholipase D and mitogen-activated protein kinase activities in T-lymphocyte cell lines. 1996 , 53, 69-76	20
2257	An in vivo system for analysis of stable complex formation between Src and AFAP-110. 1996 , 18, 55-65	7
2256	Quantitative structure-activity analysis correlating Ras/Raf interaction in vitro to Raf activation in vivo. 1996 , 3, 244-51	117
2255	Signalling by the W/Kit receptor tyrosine kinase is negatively regulated in vivo by the protein tyrosine phosphatase Shp1. 1996 , 13, 309-15	147
2254	Multiple intracellular MAP kinase signaling cascades. 1996 , 49, 1187-98	142
2253	Differential inhibition of mesangial MAP kinase cascade by cyclic nucleotides. 1996 , 50, 384-91	49
2252	Tyrosine kinases in activation of the MAP kinase cascade by G-protein-coupled receptors. 1996 , 380, 541-4	265
2251	A non-enzymatic p21 protein inhibitor of stress-activated protein kinases. 1996 , 381, 804-6	237
2250	Characterization of the mitogen-activated protein kinase phosphorylation sites on the connexin-43 gap junction protein. 1996 , 271, 3779-86	227
2249	Annexin II is a novel player in insulin signal transduction. Possible association between annexin II phosphorylation and insulin receptor internalization. 1996 , 271, 29489-96	100

2248	Insulin stimulates mitogen-activated protein kinase by a Ras-independent pathway in 3T3-L1 adipocytes. 1996 , 271, 30625-30	30
2247	Characterization of the structure and function of a novel MAP kinase kinase (MKK6). 1996 , 271, 2886-91	441
2246	Phospholipase D-derived products in the regulation of 12-O-tetradecanoylphorbol-13-acetate-stimulated prostaglandin synthesis in madin-darby canine kidney cells. 1996 , 271, 14226-32	39
2245	Potential role of mitogen-activated protein kinase during meiosis resumption in bovine oocytes. 1996 , 55, 1261-70	140
2244	The pool of map kinase associated with microtubules is small but constitutively active. 1996 , 7, 893-905	129
2243	Increased expression of protein kinase C beta activates ERK3. 1996 , 271, 11422-6	37
2242	The inducible G protein-coupled receptor edg-1 signals via the G(i)/mitogen-activated protein kinase pathway. 1996 , 271, 11272-9	134
2241	Atrial natriuretic peptide induces the expression of MKP-1, a mitogen-activated protein kinase phosphatase, in glomerular mesangial cells. 1996 , 271, 544-7	65
2240	Jun kinases are rapidly activated by cholecystokinin in rat pancreas both in vitro and in vivo. 1996 , 271, 5686-90	85
2239	The mitogen-activated protein kinase phosphatases PAC1, MKP-1, and MKP-2 have unique substrate specificities and reduced activity in vivo toward the ERK2 sevenmaker mutation. 1996 , 271, 6497-501	368
2238	Cloning and characterization of MEK6, a novel member of the mitogen-activated protein kinase kinase cascade. 1996 , 271, 11427-33	146
2237	Galpha12 stimulates c-Jun NH2-terminal kinase through the small G proteins Ras and Rac. 1996 , 271, 17349-53	124
2236	Protein kinase C activates the MEK-ERK pathway in a manner independent of Ras and dependent on Raf. 1996 , 271, 23512-9	448
2235	Activation of p42 mitogen-activated protein kinase in hippocampal long term potentiation. 1996 , 271, 24329-32	466
2234	Signaling from the small GTP-binding proteins Rac1 and Cdc42 to the c-Jun N-terminal kinase/stress-activated protein kinase pathway. A role for mixed lineage kinase 3/protein-tyrosine kinase 1, a novel member of the mixed lineage kinase family. 1996 , 271, 27225-8	275
2233	Synergy between tumor necrosis factor alpha and interleukin 1beta in inducing transcriptional down-regulation of muscarinic M2 receptor gene expression. Involvement of protein kinase A and ceramide pathways. 1996 , 271, 32586-92	52
2232	ADM-1, a protein with metalloprotease- and disintegrin-like domains, is expressed in syncytial organs, sperm, and sheath cells of sensory organs in Caenorhabditis elegans. 1996 , 7, 1877-93	39
2231	Galpha12 and Galpha13 regulate extracellular signal-regulated kinase and c-Jun kinase pathways by different mechanisms in COS-7 cells. 1996 , 271, 21081-7	84

2230	Cell volume and the metabolic actions of insulin. 1996 , 74, 513-22	8
2229	Activation of the mitogen-activated protein kinase pathway by fMet-leu-Phe in the absence of Lyn and tyrosine phosphorylation of SHC in transfected cells. 1996 , 271, 13244-9	23
2228	Heparin inhibits mitogen-activated protein kinase-dependent and -independent c-fos induction in mesangial cells. 1996 , 271, 17100-6	42
2227	Requirements for calcium and calmodulin in the calmodulin kinase activation cascade. 1996 , 271, 5617-22	103
2226	Age-related Decline in Mitogen-activated Protein Kinase Activity in Epidermal Growth Factor-stimulated Rat Hepatocytes. 1996 , 271, 3604-3607	256
2225	G alpha 13 stimulates Na+-H+ exchange through distinct Cdc42-dependent and RhoA-dependent pathways. 1996 , 271, 6152-8	151
2224	A novel cytoplasmic dual specificity protein tyrosine phosphatase implicated in muscle and neuronal differentiation. 1996 , 271, 3795-802	102
2223	In vitro enhancement of p38 mitogen-activated protein kinase activity by phosphorylated glia maturation factor. 1996 , 271, 22953-6	51
2222	Characterization of the structure and function of a new mitogen-activated protein kinase (p38beta). 1996 , 271, 17920-6	590
2221	Inhibition of mitogen-induced DNA synthesis by bafilomycin A1 in Swiss 3T3 fibroblasts. 1996 , 313 (Pt 1), 65-70	28
2220	Endothelins stimulate deoxyribonucleic acid synthesis and cell proliferation in rat adrenal zona glomerulosa, acting through an endothelin A receptor coupled with protein kinase C- and tyrosine kinase-dependent signaling pathways. 1997 , 138, 2333-7	58
2219	Growth factor-induced transcription via the serum response element is inhibited by cyclic adenosine 3',5'-monophosphate in MCF-7 breast cancer cells. 1997 , 138, 2219-26	20
2218	Early signaling events triggered by peroxovanadium [bpV(phen)] are insulin receptor kinase (IRK)-dependent: specificity of inhibition of IRK-associated protein tyrosine phosphatase(s) by bpV(phen). 1997 , 11, 1899-910	22
2217	Activation of mitogen-activated protein kinase by norepinephrine in brown adipocytes from rats. 1997 , 138, 248-53	37
2216	Norepinephrine stimulates mitogen-activated protein kinase activity in GT1-1 gonadotropin-releasing hormone neuronal cell lines. 1997 , 138, 5275-81	11
2215	The motheaten mutation rescues B cell signaling and development in CD45-deficient mice. 1997 , 186, 581-8	51
2214	T cell receptor-induced phosphorylation of Sos requires activity of CD45, Lck, and protein kinase C, but not ERK. 1997 , 272, 21625-34	18
2213	The mouse extracellular signal-regulated kinase 2 gene. Gene structure and characterization of the promoter. 1997 , 272, 21575-81	11

2212	Studies of gonadotropin-releasing hormone (GnRH) action using GnRH receptor-expressing pituitary cell lines. 1997 , 18, 46-70	191
2211	Insulin-like growth factor-I rapidly activates multiple signal transduction pathways in cultured rat cardiac myocytes. 1997 , 272, 19115-24	159
2210	Signal transduction pathways involved in the mitogenic activity of pleiotrophin. Implication of mitogen-activated protein kinase and phosphoinositide 3-kinase pathways. 1997 , 272, 19588-93	55
2209	p38-2, a novel mitogen-activated protein kinase with distinct properties. 1997 , 272, 19509-17	140
2208	Actions of insulin on the mammalian heart: metabolism, pathology and biochemical mechanisms. 1997 , 34, 3-24	93
2207	T cell proliferation in response to interleukins 2 and 7 requires p38MAP kinase activation. 1997 , 272, 15023-7	206
2206	Genetic evidence for a tyrosine kinase cascade preceding the mitogen-activated protein kinase cascade in vertebrate G protein signaling. 1997 , 272, 17209-15	58
2205	The calcium/calmodulin-dependent protein phosphatase calcineurin is the major Elk-1 phosphatase. 1997 , 272, 29415-8	103
2204	Phosphatidylinositol 3'-kinase and p70s6k are required for insulin but not bisperoxovanadium 1,10-phenanthroline (bpV(phen)) inhibition of insulin-like growth factor binding protein gene expression. Evidence for MEK-independent activation of mitogen-activated protein kinase by	55
2203	bpV(phen). 1997, 272, 138-45 Kinetic Characterization of p34cdc2/Cyclin B Kinase-Mediated Phosphorylation of Peptides Derived from Histone H1 Using Phosphocellulose Filter Binding and Scintillation Proximity Assays. 1997, 2, 25-32	5
2202	Calcium, calcium release receptors, and meiotic resumption in bovine oocytes. 1997 , 57, 1245-55	91
2201	The mitogenic and myogenic actions of insulin-like growth factors utilize distinct signaling pathways. 1997 , 272, 6653-62	499
2200	Sustained activation of the extracellular signal-regulated kinase/mitogen-activated protein kinase pathway is required for megakaryocytic differentiation of K562 cells. 1997 , 272, 23366-70	147
2199	Direct activation of the stress-activated protein kinase (SAPK) and extracellular signal-regulated protein kinase (ERK) pathways by an inducible mitogen-activated protein Kinase/ERK kinase kinase 3 (MEKK) derivative. 1997 , 272, 2668-74	84
2198	Modulation of insulin receptor substrate-1 tyrosine phosphorylation and function by mitogen-activated protein kinase. 1997 , 272, 31400-6	243
2197	c-Jun amino-terminal kinase is regulated by Galpha12/Galpha13 and obligate for differentiation of P19 embryonal carcinoma cells by retinoic acid. 1997 , 272, 24468-74	57
2196	Inhibition of MAP kinase by sphingosine and its methylated derivative, N,N-dimethylsphingosine. 1997 , 11, 31-9	3
2195	A mitogen-activated protein kinase (MAP-kinase) cascade is stimulated by platelet activating factor (PAF) in corneal epithelium. 1997 , 16, 372-9	28

2194	Salicylic Acid Activates a 48-kD MAP Kinase in Tobacco. 1997 , 9, 809	10
2193	Peroxisome proliferators activate extracellular signal-regulated kinases in immortalized mouse liver cells. 1997 , 272, 13452-7	61
2192	A novel interaction between the juxtamembrane region of the p55 tumor necrosis factor receptor and phosphatidylinositol-4-phosphate 5-kinase. 1997 , 272, 5861-70	82
2191	Discordant activation of stress-activated protein kinases or c-Jun NH2-terminal protein kinases in tissues of heat-stressed mice. 1997 , 272, 9113-9	55
2190	A requirement for the mitogen-activated protein kinase cascade in hippocampal long term potentiation. 1997 , 272, 19103-6	695
2189	Specific interaction between casein kinase 2 and the nucleolar protein Nopp140. 1997 , 272, 3773-9	95
2188	Cloning and characterization of a human STE20-like protein kinase with unusual cofactor requirements. 1997 , 272, 28695-703	88
2187	Activation of c-Jun N-terminal kinase antagonizes an anti-apoptotic action of Bcl-2. 1997 , 272, 16725-8	96
2186	Cloning and characterization of a cDNA encoding a protein synthesis initiation factor-2alpha (eIF-2alpha) kinase from Drosophila melanogaster. Homology To yeast GCN2 protein kinase. 1997 , 272, 12544-50	66
2185	Cloning of a novel mitogen-activated protein kinase kinase kinase, MEKK4, that selectively regulates the c-Jun amino terminal kinase pathway. 1997 , 272, 8288-95	205
2184	Engagement of P-selectin glycoprotein ligand-1 enhances tyrosine phosphorylation and activates mitogen-activated protein kinases in human neutrophils. 1997 , 272, 28750-6	177
2183	Cytoskeleton reorganization induces the urokinase-type plasminogen activator gene via the Ras/extracellular signal-regulated kinase (ERK) signaling pathway. 1997 , 272, 1904-9	64
2182	Lipopolysaccharide and Raf-1 kinase regulate secretory interleukin-1 receptor antagonist gene expression by mutually antagonistic mechanisms. 1997 , 17, 1118-28	19
2181	Beta interferon and oncostatin M activate Raf-1 and mitogen-activated protein kinase through a JAK1-dependent pathway. 1997 , 17, 3833-40	103
2180	Megakaryocytic differentiation induced by constitutive activation of mitogen-activated protein kinase kinase. 1997 , 17, 1947-58	208
2179	Lack of a role for Jun kinase and AP-1 in Fas-induced apoptosis. 1997 , 17, 170-81	221
2178	Mkh1, a MEK kinase required for cell wall integrity and proper response to osmotic and temperature stress in Schizosaccharomyces pombe. 1997 , 17, 3508-19	58
2177	Mechanisms of mitogen-activated protein kinase activation by nicotine in small-cell lung carcinoma cells. 1997 , 328 (Pt 2), 499-503	62

2176	Ornithine decarboxylase overexpression in mouse 10T1/2 fibroblasts: cellular transformation and invasion. 1997 , 89, 567-71	67
2175	Mechanism of mitogen-activated protein kinase activation by gonadotropin-releasing hormone in the pituitary of alphaT3-1 cell line: differential roles of calcium and protein kinase C. 1997 , 138, 1673-82	118
2174	Regulation of Ca2+/calmodulin-dependent protein kinase IV (CaM-kinase IV) by changing its susceptibility to phosphorylation by CaM-kinase kinases. 1997 , 122, 897-900	1
2173	Mitogen-activated protein kinase phosphatase 1 inhibits the stimulation of gene expression by hypertrophic agonists in cardiac myocytes. 1997 , 323 (Pt 2), 313-9	54
2172	Diacylglycerol generated by exogenous phospholipase C activates the mitogen-activated protein kinase pathway independent of Ras- and phorbol ester-sensitive protein kinase C: dependence on protein kinase C-zeta. 1997 , 323 (Pt 3), 693-9	71
2171	Mitogen-activated protein kinase translocates to the nucleus during ischaemia and is activated during reperfusion. 1997 , 323 (Pt 3), 785-90	63
2170	Growth hormone and phorbol esters require specific protein kinase C isoforms to activate mitogen-activated protein kinases in 3T3-F442A cells. 1997 , 324 (Pt 1), 159-65	40
2169	Cytosolic phospholipase A2 and its mode of activation in human neutrophils by opsonized zymosan. Correlation between 42/44 kDa mitogen-activated protein kinase, cytosolic phospholipase A2 and NADPH oxidase. 1997 , 326 (Pt 3), 867-76	77
2168	Activation of mitogen-activated protein kinase subfamilies by oxidative stress in the perfused rat heart. 1997 , 25, S565	1
2167	Mitogen-activated protein kinases are activated by oxidative stress and cytokines in neonatal rat ventricular myocytes. 1997 , 25, S566	6
2166	Activation of protein kinase C by tyrosine phosphorylation in response to H2O2. 1997 , 94, 11233-7	529
2165	Interleukin 8-stimulated phosphatidylinositol-3-kinase activity regulates the migration of human neutrophils independent of extracellular signal-regulated kinase and p38 mitogen-activated protein kinases. 1997 , 94, 3052-7	272
2164	Ras1-Mediated Photoreceptor Development in Drosophila. 1997 , 1-41	9
2163	Analysis of signal transduction following lymphocyte activation by chemokines. 1997 , 288, 340-61	7
2162	[Not Available]. 1997 , 7, 217-31	10
2161	Angiotensin-II stimulates DNA synthesis in rat adrenal zona glomerulosa cells: receptor subtypes involved and possible signal transduction mechanism. 1997 , 23, 191-203	16
2160	Nitric oxide modulates the c-Jun N-terminal kinase/stress-activated protein kinase activity through activating c-Jun N-terminal kinase kinase. 1997 , 36, 13677-81	49
2159	Rho GTPases and signaling networks. 1997 , 11, 2295-322	1913

2158	Protein tyrosine kinase involvement in the production of superoxide anion by neutrophils exposed to Aroclor 1242, a mixture of polychlorinated biphenyls. 1997 , 53, 1833-42	15
2157	Beraprost sodium, an analogue of prostacyclin, induces the expression of mitogen-activated protein kinase phosphatase and inhibits the proliferation of cultured mesangial cells. 1997 , 336, 291-4	19
2156	Regulation of gene expression by hypertonicity. 1997 , 59, 437-55	327
2155	Modulation by Oxidants and Antioxidants of Signal Transduction and Smooth Muscle Cell Proliferation. 1997 , 323-342	1
2154	CD44: structure, function, and association with the malignant process. 1997 , 71, 241-319	717
2153	The activating dual phosphorylation of MAPK by MEK is nonprocessive. 1997 , 36, 5929-33	163
2152	An NGF-TrkA-mediated retrograde signal to transcription factor CREB in sympathetic neurons. 1997 , 277, 1097-100	374
2151	In situ activation pattern of Drosophila EGF receptor pathway during development. 1997 , 277, 1103-6	337
2150	Extracellular matrix is required for MAP kinase activation and proliferation of rat glomerular epithelial cells. 1997 , 231, 160-6	18
2149	The Ras antagonist S-farnesylthiosalicylic acid induces inhibition of MAPK activation. 1997 , 239, 900-4	58
2148	Interleukin 6 stimulates a tyrosine kinase activity potentially involved in mouse hybridoma cell growth. 1997 , 9, 93-100	1
2147	The nuclear location of annexin V in the human osteosarcoma cell line MG-63 depends on serum factors and tyrosine kinase signaling pathways. 1997 , 234, 98-104	26
2146	Differential regulation of extracellular signal-regulated kinase 1 and 2 activity during 12-O-tetradecanoylphorbol 13-acetate-induced differentiation of HL-60 cells. 1997 , 234, 321-8	15
2145	Cooperative induction of c-fos and heme oxygenase gene products under oxidative stress in human fibroblastic cells. 1997 , 237, 434-44	26
2144	MEKKs, GCKs, MLKs, PAKs, TAKs, and tpls: upstream regulators of the c-Jun amino-terminal kinases?. 1997 , 7, 67-74	274
2143	Activation mechanism of the MAP kinase ERK2 by dual phosphorylation. 1997 , 90, 859-69	643
2142	Activation of p21-activated protein kinase alpha (alpha PAK) by hyperosmotic shock in neonatal ventricular myocytes. 1997 , 403, 23-5	33
2141	Detection of ERK activation by a novel monoclonal antibody. 1997 , 408, 292-6	111

2140	Advanced glycation endproducts stimulate the MAP-kinase pathway in tubulus cell line LLC-PK1. 1997 , 410, 481-4	60
2139	Inhibitors of phosphoprotein phosphatases 1 and 2A cause activation of a 53 kDa protein kinase accompanying the apoptotic response of breast cancer cells. 1997 , 410, 347-50	13
2138	Activation of mitogen-activated protein kinase by the nociceptin receptor expressed in Chinese hamster ovary cells. 1997 , 412, 290-4	34
2137	Inhibition of MAP kinase blocks insulin-mediated DNA synthesis and transcriptional activation of c-fos by Elk-1 in vascular smooth muscle cells. 1997 , 417, 283-6	49
2136	Selective activation of JNK/SAPK by interleukin-1 in rabbit liver is mediated by MKK7. 1997 , 418, 144-8	36
2135	Pathways and roadblocks in muscarinic receptor-mediated growth regulation. 1997 , 60, 1077-1084	14
2134	Activation of mitogen-activated protein kinase in freshly isolated rat hepatocytes by both a calcium- and a protein kinase C-dependent pathway. 1997 , 46, 548-55	25
2133	Negative regulation of Raf activity by binding of 14-3-3 to the amino terminus of Raf in vivo. 1997 , 64, 95-104	47
2132	A highly specific inhibitor of human p38 MAP kinase binds in the ATP pocket. 1997 , 4, 311-6	347
2131	Protein tyrosine kinase, mitogen-activated protein kinase and protein kinase C are involved in the mitogenic signaling of platelet-activating factor (PAF) in HEC-1A cells. 1997 , 1355, 155-66	17
2130	Selenium: potent stimulator of tyrosyl phosphorylation and activator of MAP kinase. 1997 , 1355, 259-69	71
2129	Brain-derived neurotrophic factor stimulates phosphorylation of stathmin in cortical neurons. 1997 , 51, 220-8	24
2128	Tumor necrosis factor-alpha and interleukin-1 induce activation of MAP kinase and SAP kinase in human neuroma fibroblasts. 1997 , 30, 401-10	48
2127	Cloning and expression of cDNA encoding a mitogen-activated protein kinase from a phytopathogenic filamentous fungus. 1997 , 195, 161-6	26
2126	Dynamic regulation of c-Jun N-terminal kinase activity in mouse brain by environmental stimuli. 1997 , 94, 12655-60	102
2125	Cholecystokinin and EGF activate a MAPK cascade by different mechanisms in rat pancreatic acinar cells. 1997 , 273, C1472-9	72
2124	Action potential-dependent regulation of gene expression: temporal specificity in ca2+, cAMP-responsive element binding proteins, and mitogen-activated protein kinase signaling. 1997 , 17, 7252-66	255
2123	Vascular dopamine-I receptors and atherosclerosis. 1997 , 4, 59-64	8

Digoxigenin-labeled peptides for the immunological quantification of intracellular signaling proteins: application to the MAP kinase kinase isoform MEK2. **1997**, 23, 1098-103

2121	Constitutively active mutant of the mitogen-activated protein kinase kinase MEK1 induces epithelial dedifferentiation and growth inhibition in madin-darby canine kidney-C7 cells. 1997 , 272, 11426-33	54
2120	Bradykinin induces tubulin phosphorylation and nuclear translocation of MAP kinase in mesangial cells. 1997 , 273, F916-24	9
2119	Involvement of phosphatidylcholine-specific phospholipase C in platelet-derived growth factor-induced activation of the mitogen-activated protein kinase pathway in Rat-1 fibroblasts. 1997, 272, 11011-6	56
2118	Reversion of Ras- and phosphatidylcholine-hydrolyzing phospholipase C-mediated transformation of NIH 3T3 cells by a dominant interfering mutant of protein kinase C lambda is accompanied by the loss of constitutive nuclear mitogen-activated protein kinase/extracellular signal-regulated kinase activity. 1997, 272, 11557-65	64
2117	MAPK Cascades in Cell Growth and Death. 1997 , 12, 286-293	8
2116	Dopamine as a novel antimigration and antiproliferative factor of vascular smooth muscle cells through dopamine D1-like receptors. 1997 , 17, 3164-73	30
2115	Activation of mitogen-activated protein kinases (ERK/JNK) and AP-1 transcription factor in rat carotid arteries after balloon injury. 1997 , 17, 2808-16	146
2114	Nuclear translocation of mitogen-activated protein kinase kinase (MEK1) in response to mitogenic stimulation. 1997 , 94, 3742-7	163
2113	Growth factor activity of endothelin-1 in primary astrocytes mediated by adhesion-dependent and -independent pathways. 1997 , 17, 6203-12	91
2112	Growth-inhibitory effects of N,N-diethyl-2-[4-(phenylmethyl)phenoxy]-ethanamine-HCl combined with cisplatin on human ovarian cancer cells inoculated into nude mice. 1997 , 88, 1003-8	4
2111	Pharmacological treatment and mechanisms of insulin resistance. Impact on vascular smooth muscle cells, blood pressure, and lipids. 1997 , 827, 170-7	4
2110	Mutation analysis of the coding sequences of MEK-1 and MEK-2 genes in human lung cancer cell lines. 1997 , 14, 1231-4	21
2109	A novel human ERK phosphatase regulates H-ras and v-raf signal transduction. 1997 , 14, 2633-9	39
2108	MEK1 mediates a positive feedback on Raf-1 activity independently of Ras and Src. 1997 , 15, 1503-11	31
2107	Effects of the inhibition of p38/RK MAP kinase on induction of five fos and jun genes by diverse stimuli. 1997 , 15, 2321-31	92
2106	MAP3K-related kinase involved in NF-kappaB induction by TNF, CD95 and IL-1. 1997 , 385, 540-4	1204
2105	Activation and signal transduction via mitogen-activated protein (MAP) kinases in T lymphocytes. 1997 , 75, 528-45	42

2104	Endothelin-1 activates c-Jun NH2-terminal kinase in mesangial cells. 1997 , 51, 631-9	36
2103	Signal transduction by wild-type and leukemogenic Abl proteins. 1997 , 1333, F201-16	40
2102	Regulation of the ERK subgroup of MAP kinase cascades through G protein-coupled receptors. 1997 , 9, 337-51	286
2101	Signal transduction pathways involved in BCR-ABL transformation. 1997 , 10, 223-31	54
2100	Control of EGF receptor activation in Drosophila. 1997 , 7, 431-6	42
2099	Tumor-necrosis factor-alpha modulates mitogen-activated protein kinase activity of epidermal-growth-factor-stimulated MCF-7 breast cancer cells. 1997 , 249, 421-6	13
2098	Biphasic activation of p21ras by endothelin-1 sequentially activates the ERK cascade and phosphatidylinositol 3-kinase. 1997 , 16, 6439-51	129
2097	BMK1/ERK5 regulates serum-induced early gene expression through transcription factor MEF2C. 1997 , 16, 7054-66	479
2096	Immunomodulated signaling in macrophages: Studies on activation of Raf-1, MAPK, cPLA(2) and secretion of IL-12. 1997 , 40, 583-92	5
2095	Various hypertrophic stimuli induce distinct phenotypes in cardiomyocytes. 1997 , 75, 901-20	155
2094	New directions for studying the role of free radicals in aging. 1997 , 20, 151-63	5
2093	Crystallization and preliminary crystallographic analysis of recombinant human P38 MAP kinase. 1997 , 6, 242-5	14
2092	Human immunodeficiency virus type 1 and its coat protein gp120 induce apoptosis and activate JNK and ERK mitogen-activated protein kinases in human neurons. 1997 , 42, 847-56	102
2091	Disruption of integrin alpha 5 beta 1 signaling does not impair PDGF-BB-mediated stimulation of the extracellular signal-regulated kinase pathway in smooth muscle cells. 1997 , 172, 109-16	23
2090	bcl-2 enhancement of malignant transformation in mouse epidermal JB6 cells. 1997 , 20, 231-9	14
2089	Nerve growth factor signal transduction in mature pig oligodendrocytes. 1997 , 50, 729-42	32
2088	Normal stimulation of the synthesis, phosphorylation and DNA binding activity of c-Fos and Zif268 proteins by nerve growth factor is not sufficient to mediate neuronal differentiation of PC12 cells. 1998, 189, 71-7	2
2087	The mitogen-activated protein kinase pathway contributes to vanadate toxicity in vascular smooth muscle cells. 1998 , 183, 97-103	11

2086	Differential Ras-dependence of gene induction by nerve growth factor and second messenger analogs in PC12 cells. 1998 , 23, 969-75	6
2085	Growth effects of regulatory peptides and intracellular signaling routes in human pancreatic cancer cell lines. 1998 , 9, 171-83	26
2084	Modulation of MAP kinase signaling and growth characteristics by the overexpression of protein kinase C in NIH3T3 cells. 1998 , 45, 1139-48	3
2083	PRAK, a novel protein kinase regulated by the p38 MAP kinase. 1998 , 17, 3372-84	256
2082	Differential endocytic routing of homo- and hetero-dimeric ErbB tyrosine kinases confers signaling superiority to receptor heterodimers. 1998 , 17, 3385-97	286
2081	Activation of p21ras/MAPK signal transduction molecules decreases with age in mitogen-stimulated T cells from rats. 1998 , 185, 39-48	45
2080	Mechanism of GnRH receptor signaling: combinatorial cross-talk of Ca2+ and protein kinase C. 1998 , 19, 1-19	97
2079	Suppression of fibroblast cell cycle progression in G1 phase by N-acetylcysteine. 1998 , 149, 210-6	62
2078	Differential activation of mitogen-activated protein kinases by palytoxin and ouabain, two ligands for the Na+,K+-ATPase. 1998 , 151, 377-84	42
2077	The MAPK cascade is required for mammalian associative learning. 1998 , 1, 602-9	933
2076	Type I and II models of diabetes produce different modifications of K+ currents in rat heart: role of insulin. 1998 , 507 (Pt 2), 485-96	71
2075	Human adenosine A1 receptor and P2Y2-purinoceptor-mediated activation of the mitogen-activated protein kinase cascade in transfected CHO cells. 1998 , 124, 1491-9	56
2074	Effects of mitogen-activated protein kinase kinase inhibitor PD 098059 on antigen challenge of guinea-pig airways in vitro. 1998 , 125, 61-8	23
2073	Isolation of a new protein factor required for activation of Raf-1 by Ha-Ras: partial purification from rat brain cytosols. 1998 , 16, 2781-6	6
2072	Activation of the 41/43 kDa mitogen-activated protein kinase signaling pathway is required for hepatocyte growth factor-induced cell scattering. 1998 , 17, 57-65	91
2071	Effector domain mutants of Rho dissociate cytoskeletal changes from nuclear signaling and cellular transformation. 1998 , 17, 991-8	55
2070	Increased constitutive activity of mitogen-activated protein kinase and renaturable 85 kDa kinase in human-colorectal cancer. 1998 , 78, 1301-6	16
2069	Prenatal Cocaine Exposure Alters Signal Transduction in the Brain D Dopamine Receptor System. 1998 , 846, 238-247	36

2068	Innovative treatment programs against cancer. I. Ras oncoprotein as a molecular target. 1998 , 56, 1411-26	21
2067	Novel mechanism by which hemoglobin induces constriction of cerebral arteries. 1998 , 361, 311-9	30
2066	Oxidant-mediated activation of mitogen-activated protein kinases and nuclear transcription factors in the cardiovascular system: a brief overview. 1998 , 10, 675-83	97
2065	Signal transduction via platelet-derived growth factor receptors. 1998 , 1378, F79-113	296
2064	Thrombopoietin potentiates the protein-kinase-C-mediated activation of mitogen-activated protein kinase/ERK kinases and extracellular signal-regulated kinases in human platelets. 1998 , 258, 976-85	15
2063	Structural basis of inhibitor selectivity in MAP kinases. 1998 , 6, 1117-28	395
2062	Decline of shear stress-induced activation of extracellular signal-regulated kinases, but not stress-activated protein kinases, in in vitro propagated endothelial cells. 1998 , 33, 601-13	17
2061	The mitogen-activated protein kinase pathway mediates growth arrest or E1A-dependent apoptosis in SKBR3 human breast cancer cells. 1998 , 78, 511-7	25
2060	Activation-induced NK cell death triggered by CD2 stimulation. 1998 , 28, 1292-300	28
2059	Co-stimulation-dependent activation of a JNK-kinase in T lymphocytes. 1998 , 28, 2320-30	66
2058	Localized activation of RTK/MAPK pathways during Drosophila development. 1998 , 20, 189-94	36
2057	Immunolocalization of the mitogen-activated protein kinases p42MAPK and JNK1, and their regulatory kinases MEK1 and MEK4, in adult rat central nervous system. 1998 , 398, 373-92	69
2056	Angiotensin II induces diverse signal transduction pathways via both Gq and Gi proteins in liver epithelial cells. 1998 , 69, 63-71	12
2055	Activation of c-Jun NH2-terminal kinases by interleukin-1#n normal human osteoblastic and rat UMR-106 cells. 1998 , 69, 87-93	9
2054	NGF induces transient but not sustained activation of ERK in PC12 mutant cells incapable of differentiating. 1998 , 70, 425-32	33
2053	Regulation of heregulin beta1-induced differentiation in a human breast carcinoma cell line by the extracellular-regulated kinase (ERK) pathway. 1998 , 70, 587-95	22
2052	Response to transforming growth factor alpha (TGFalpha) and epidermal growth factor (EGF) in hepatocytes: lower EGF receptor affinity of TGFalpha is associated with more sustained activation of p42/p44 mitogen-activated protein kinase and greater efficacy in stimulation of DNA synthesis.	44
2051	Activation of p42/p44 mitogen-activated protein kinase by angiotensin II, vasopressin, norepinephrine, and prostaglandin F2alpha in hepatocytes is sustained, and like the effect of epidermal growth factor, mediated through pertussis toxin-sensitive mechanisms, 1998 , 175, 348-58	33

2050 Selective modulation of MAP kinase in embryonic palate cells. 1998 , 176, 266-80	10
2049 KT5720 and U-98017 inhibit MAPK and alter the cytoskeleton and cell morphology. 1998 , 176, 525-36	23
Possible involvement of p21/waf1 in the growth inhibition of HepG2 cells induced by hepatocyte growth factor. 1998 , 177, 130-6	26
Signal transduction pathways in the mitogenic response to G protein-coupled neuropeptide receptor agonists. 1998 , 177, 507-17	137
Differential activation of ErbB receptors in the rat olfactory mucosa by transforming growth factor-alpha and epidermal growth factor in vivo. 1998 , 37, 199-210	19
Cross-talk between angiotensin II and interleukin-6-induced signaling through Stat3 transcription factor. 1998 , 93 Suppl 3, 26-9	4
2044 Mitogenic effect of PDGF-AA on cardiac fibroblasts. 1998 , 93 Suppl 3, 40-3	20
Molecular cloning and characterization of maize ZmMEK1, a protein kinase with a catalytic domain homologous to mitogen- and stress-activated protein kinase kinases. 1998 , 206, 577-84	30
2042 Regulation of cellular and molecular functions by protein phosphorylation. 1998 , 3, 70-78	2
Isolation and identification of novel protein kinase genes from the round-spotted pufferfish (Tetraodon fluviatilis) genomic DNA. 1998 , 5, 127-34	
2040 Prolactin and growth hormone signal transduction in lymphohaemopoietic cells. 1998 , 54, 1067-75	21
Cytosolic acidification but not auxin at physiological concentration is an activator of MAP kinases in tobacco cells. 1998 , 16, 173-82	59
2038 Crosstalk between the phosphatidylinositol cycle and MAP kinase signaling pathways in Xenopus mesoderm induction. 1998 , 40, 231-41	1
2037 MAP kinase abnormalities in hyperproliferative cultured fibroblasts from psoriatic skin. 1998, 110, 872-9	13
2036 Complement activates phospholipases and protein kinases in glomerular epithelial cells. 1998 , 54, 360-72	43
2035 Angiotensin II induces superoxide anion production by mesangial cells. 1998 , 54, 775-84	200
Atrial natriuretic peptide inhibits endothelin-1-induced activation of JNK in glomerular mesangial cells. 1998 , 53, 1133-42	33
2033 Endogenous opioids: overview and current issues. 1998 , 51, 127-40	141

2032	Molecular cloning and characterization of a human protein kinase that specifically activates c-Jun N-terminal kinase. 1998 , 212, 95-102	30
2031	From Vanadis to Atropos: vanadium compounds as pharmacological tools in cell death signalling. 1998 , 19, 452-60	94
2030	Abundance of platelet-derived growth factors (PDGFs), PDGF receptors and activation of mitogen-activated protein kinases in brain decline with age. 1998 , 53, 252-9	19
2029	Mitogenic signaling from P1 and P2 purinergic receptors to mitogen-activated protein kinase in human fetal astrocyte cultures. 1998 , 242, 159-62	83
2028	Expression of immediate early gene cyr61 during the differentiation of immortalized embryonic hippocampal neuronal cells. 1998 , 255, 155-8	19
2027	Differential regulation of MAP kinase activity by corticotropin-releasing hormone in normal and neoplastic corticotropes. 1998 , 30, 1389-401	24
2026	SynGAP: a synaptic RasGAP that associates with the PSD-95/SAP90 protein family. 1998 , 20, 683-91	506
2025	The repetitive activation of extracellular signal-regulated kinase is required for renal regeneration in rat. 1998 , 62, 2341-7	9
2024	Activation of extracellular signal-regulated kinase in lung tissues of mice treated with carcinogen. 1999 , 64, 229-36	13
2023	Regulation of mitogen-activated protein kinase cascades in the heart. 1998 , 38, 87-98	24
2022	Signaling via mitogen-activated protein kinase kinase (MEK1) is required for Golgi fragmentation during mitosis. 1998 , 92, 183-92	172
2021	CNK, a RAF-binding multidomain protein required for RAS signaling. 1998 , 95, 343-53	142
2020	The p38-MAPK inhibitor, SB203580, inhibits cardiac stress-activated protein kinases/c-Jun N-terminal kinases (SAPKs/JNKs). 1998 , 426, 93-6	183
2019	Pervanadate inhibits mitogen-activated protein kinase kinase-1 in a p38MAPK-dependent manner. 1998 , 427, 271-4	21
2018	Pervanadate-triggered MAP kinase activation and cell proliferation are not sensitive to PD 98059. Evidence for stimulus-dependent differential PD 98059 inhibition mechanism. 1998 , 434, 241-4	8
2017	Ethanol inhibits hepatocyte proliferation in insulin receptor substrate 1 transgenic mice. 1998 , 115, 1558-65	44
2016	CAS, the human homologue of the yeast chromosome-segregation gene CSE1, in proliferation, apoptosis, and cancer. 1998 , 62, 509-13	49
2015	Calcium- and calmodulin-dependent PMA-activation of the CD44 adhesion molecule. 1998 , 6, 503-23	13

2014 Inhibitors of Cell Growth. 1998, 7 Deuterium exchange mass spectrometry as a probe of protein kinase activation. Analysis of 2013 73 wild-type and constitutively active mutants of MAP kinase kinase-1. 1998, 37, 463-75 2012 Ins and outs of meiosis in ascidians. **1998**, 9, 559-67 26 alpha-Thrombin inhibits signal transducers and activators of transcription 3 signaling by 2011 9 interleukin-6, leukemia inhibitory factor, and ciliary neurotrophic factor in CCL39 cells. 1998, 350, 307-14 Differential regulation of extracellular signal-regulated kinase and nuclear factor-kappa B signal 2010 51 transduction pathways by hydrogen peroxide and tumor necrosis factor, 1998, 352, 255-62 Up-regulation of phosphorylation of focal adhesion kinase and paxillin by combination of substance 36 P and IGF-1 in SV-40 transformed human corneal epithelial cells. 1998, 242, 16-20 2008 Tyrosine kinase and MAPK inhibition of TNF-alpha- and EGF-stimulated IEC-6 cell growth. 1998, 242, 146-50 31 Ionizing radiation activates c-Jun NH2-terminal kinase (JNK/SAPK) via a PKC-dependent pathway in 2007 26 human thyroid cells. 1998, 244, 41-4 Synergistic effect of cyclic AMP and insulin on the expression of cyclin A gene in Swiss 3T3 cells. 6 2006 1998, 244, 843-8 Proliferation and differentiation of human osteoblastic cells associated with differential activation 2005 of MAP kinases in response to epidermal growth factor, hypoxia, and mechanical stress in vitro. 173 **1998**, 249, 350-4 Overexpression of glia maturation factor (GMF) in PC12 pheochromocytoma cells activates p38 2004 33 MAP kinase, MAPKAP kinase-2, and tyrosine hydroxylase. 1998, 250, 278-82 The hCSE1/CAS protein is phosphorylated by HeLa extracts and MEK-1: MEK-1 phosphorylation may 2003 16 modulate the intracellular localization of CAS. 1998, 250, 623-8 2002 Activation of c-Jun NH2-terminal kinase (JNK/SAPK) in LLC-PK1 cells by cadmium. 1998, 251, 527-32 44 Conditional expression of the dual-specificity phosphatase PYST1/MKP-3 inhibits phosphorylation 4 of cytosolic phospholipase A2 in Chinese hamster ovary cells. 1998, 253, 485-8 Mitogen-activated protein kinase activation mediates PDGF-directed migration of RPE cells. 1998, 2000 57 239, 11-5 Impairments in both p70 S6 kinase and extracellular signal-regulated kinase signaling pathways 18 1999 contribute to the decline in proliferative capacity of aged hepatocytes. 1998, 240, 40-8 PD 98059 prevents establishment of the spindle assembly checkpoint and inhibits the G2-M 1998 44 transition in meiotic but not mitotic cell cycles in Xenopus. 1998, 241, 12-22 Platelet-derived growth factor-BB, insulin-like growth factor-I, and phorbol ester activate different 104 signaling pathways for stimulation of vascular smooth muscle cell migration. 1998, 242, 548-60

1996	Fast and sensitive method for simultaneous measurement of cell proliferation rate and drug sensitivity in rat cerebral cortex. 1998 , 151, 194-202	7
1995	Regulation of vascular smooth muscle migration by mitogen-activated protein kinase and calcium/calmodulin-dependent protein kinase II signaling pathways. 1998 , 30, 2377-89	52
1994	In situ visualization of intratumor growth factor signaling: immunohistochemical localization of activated ERK/MAP kinase in glial neoplasms. 1998 , 153, 1411-23	107
1993	Immunological detection of phosphorylation. 2001 , Chapter 14, Unit 14.2	1
1992	Effects of the mitogen-activated protein (MAP) kinase kinase inhibitor 2-(2'-amino-3'-methoxyphenyl)-oxanaphthalen-4-one (PD98059) on human platelet activation. 1998 , 55, 1759-67	19
1991	Kinases and phosphatasesa marriage is consummated. 1998 , 280, 1212-3	35
1990	Isolation and Identification of Novel Protein Kinase Genes from the Round-Spotted Pufferfish (Tetraodon fluviatilis) Genomic DNA. 1998 , 5, 127-134	6
1989	Combinatorial signaling codes for the progressive determination of cell fates in the Drosophila embryonic mesoderm. 1998 , 12, 3910-22	161
1988	Formation and specification of ventral neuroblasts is controlled by vnd in Drosophila neurogenesis. 1998 , 12, 3613-24	93
1987	Growth factors and mitogen-activated protein kinases. 1998 , 31, 152-61	295
1986	Regulation of mitogen-activated protein kinase phosphatase-1 induction by insulin in vascular smooth muscle cells. Evaluation of the role of the nitric oxide signaling pathway and potential defects in hypertension. 1998 , 273, 25164-70	73
1985	The tumor necrosis factor signaling complex: choosing a path toward cell death or cell proliferation. 1998 , 29, 81-92	32
1984	Regulation of connexin-43 gap junctional intercellular communication by mitogen-activated protein kinase. 1998 , 273, 9188-96	268
1983		
	A novel F box protein, NFB42, is highly enriched in neurons and induces growth arrest. 1998 , 273, 35222-7	51
1982	Protein kinase G mediates vascular endothelial growth factor-induced Raf-1 activation and proliferation in human endothelial cells. 1998 , 273, 23504-8	122
1982 1981	Protein kinase G mediates vascular endothelial growth factor-induced Raf-1 activation and	<u> </u>
	Protein kinase G mediates vascular endothelial growth factor-induced Raf-1 activation and proliferation in human endothelial cells. 1998 , 273, 23504-8 Activation of the tobacco SIP kinase by both a cell wall-derived carbohydrate elicitor and purified	122

1978	Regulation of mitogen-activated protein kinase phosphatase-1 in vascular smooth muscle cells. 1998 , 32, 661-7	45
1977	"Stress-responsive" mitogen-activated protein kinases (c-Jun N-terminal kinases and p38 mitogen-activated protein kinases) in the myocardium. 1998 , 83, 345-52	449
1976	Lysophosphatidylcholine stimulates the release of arachidonic acid in human endothelial cells. 1998 , 273, 6830-6	77
1975	Stimulation of Jun N-terminal kinase (JNK) by gonadotropin-releasing hormone in pituitary alpha T3-1 cell line is mediated by protein kinase C, c-Src, and CDC42. 1998 , 12, 815-24	100
1974	Modulation of insulin-like growth factor I mitogenic signaling in 3T3-L1 preadipocyte differentiation. 1998 , 139, 1638-44	51
1973	Serotonergic repression of mitogen-activated protein kinase control of the calcitonin gene-related peptide enhancer. 1998 , 12, 1002-9	35
1972	Protein kinases, protein phosphorylation, and the regulation of insulin secretion from pancreatic beta-cells. 1998 , 19, 429-61	157
1971	Stimulation of phosphorylation of mitogen-activated protein kinase by 1alpha,25-dihydroxyvitamin D3 in promyelocytic NB4 leukemia cells: a structure-function study. 1998 , 139, 457-65	109
1970	Inhibition of mitogen-activated protein kinase activity and proliferation of an early osteoblast cell line (MBA 15.4) by dexamethasone: role of protein phosphatases. 1998 , 139, 2423-31	43
1969	Visna-maedi virus induces interleukin-8 in sheep alveolar macrophages through a tyrosine-kinase signaling pathway. 1998 , 18, 532-7	11
1968	Nitric oxide is an upstream signal of vascular endothelial growth factor-induced extracellular signal-regulated kinase1/2 activation in postcapillary endothelium. 1998 , 273, 4220-6	340
1967	Disruption of fibronectin binding to the alpha 5 beta 1 integrin stimulates the expression of cyclin-dependent kinases and DNA synthesis through activation of extracellular signal-regulated kinase. 1998 , 273, 1662-9	31
1966	The hyaluronan receptor RHAMM regulates extracellular-regulated kinase. 1998 , 273, 11342-8	160
1965	Uncoupling of hepatic, epidermal growth factor-mediated mitogen-activated protein kinase activation in the fetal rat. 1998 , 273, 3784-90	29
1964	Activation of gp130 transduces hypertrophic signals via STAT3 in cardiac myocytes. 1998 , 98, 346-52	212
1963	An analysis of Mek1 signaling in cell proliferation and transformation. 1998 , 273, 13280-8	64
1962	Platelet-derived growth factor inhibits insulin stimulation of insulin receptor substrate-1-associated phosphatidylinositol 3-kinase in 3T3-L1 adipocytes without affecting glucose transport. 1998 , 273, 25139-47	75
1961	Stimulation of p38 phosphorylation and activity by arachidonic acid in HeLa cells, HL60 promyelocytic leukemic cells, and human neutrophils. Evidence for cell type-specific activation of mitogen-activated protein kinases. 1998 , 273, 19277-82	87

1960	Signal transduction of mechanical stresses in the vascular wall. 1998 , 32, 338-45	260
1959	Cell replication in the arterial wall: activation of signaling pathway following in vivo injury. 1998 , 82, 713-21	123
1958	Analysis of the Gs/mitogen-activated protein kinase pathway in mutant S49 cells. 1998 , 273, 14533-7	71
1957	Protein kinase C regulates chondrogenesis of mesenchymes via mitogen-activated protein kinase signaling. 1998 , 273, 19213-9	77
1956	Interactive effects of c-myc and transforming growth factor alpha transgenes on liver tumor development in simian virus 40 T antigen transgenic mice. 1998 , 35, 283-91	4
1955	A novel mechanism of CD4 down-modulation induced by monosialoganglioside GM3. Involvement of serine phosphorylation and protein kinase c delta translocation. 1998 , 273, 35153-60	37
1954	Inhibition of the p44/42 MAP kinase pathway protects hippocampal neurons in a cell-culture model of seizure activity. 1998 , 95, 11975-80	207
1953	Activation of Raf-1 by interferon gamma and oncostatin M requires expression of the Stat1 transcription factor. 1998 , 273, 18701-4	33
1952	Stimulation of "stress-regulated" mitogen-activated protein kinases (stress-activated protein kinases/c-Jun N-terminal kinases and p38-mitogen-activated protein kinases) in perfused rat hearts by oxidative and other stresses. 1998 , 273, 7228-34	264
1951	Phosphorylation and association with the transcription factor Atf1 regulate localization of Spc1/Sty1 stress-activated kinase in fission yeast. 1998 , 12, 1464-73	130
1950	A role for the p38 mitogen-activated protein kinase/Hsp 27 pathway in cholecystokinin-induced changes in the actin cytoskeleton in rat pancreatic acini. 1998 , 273, 24173-80	130
1949	Induction of c-fos proto-oncogene in mesangial cells by cadmium. 1998 , 273, 73-9	79
1948	Biochemical properties of two protein kinases involved in disease resistance signaling in tomato. 1998 , 273, 15860-5	34
1947	Oncogenic src, raf, and ras stimulate a hypertrophic pattern of gene expression and increase cell size in neonatal rat ventricular myocytes. 1998 , 273, 18146-52	47
1946	Carbachol stimulates transactivation of epidermal growth factor receptor and mitogen-activated protein kinase in T84 cells. Implications for carbachol-stimulated chloride secretion. 1998 , 273, 27111-7	136
1945	Distinct mechanisms mediate the initial and sustained phases of integrin-mediated activation of the Raf/MEK/mitogen-activated protein kinase cascade. 1998 , 273, 27268-74	62
1944	Mitogen-activated protein kinase phosphorylates and regulates the HIV-1 Vif protein. 1998 , 273, 29879-87	79
1943	Induction of mitogen-activated protein kinase phosphatase-1 by arachidonic acid in vascular smooth muscle cells. 1998 , 273, 33320-6	52

1942	Signal transduction in arteriosclerosis: mechanical stress-activated MAP kinases in vascular smooth muscle cells (review). 1998 , 1, 827-34	69
1941	Mitogenic signaling by substance P and bombesin-like neuropeptide receptors in astrocytic/glial brain tumor-derived cell lines. 1998 , 12, 273-86	4
1940	Effect of interleukins on UGT2B15 and UGT2B17 steroid uridine diphosphate-glucuronosyltransferase expression and activity in the LNCaP cell line. 1998 , 139, 2375-81	47
1939	Thrombin signal transduction of the fibrinolytic system in human adult venous endothelium in vitro. 1998 , 58, 347-52	4
1938	Stimulation of mitogen activated protein kinase and cellular proliferation in renal proximal tubular cells. 1998 , 20, 229-34	5
1937	Signal transduction via the mitogen-activated protein kinase pathway induced by binding of coagulation factor VIIa to tissue factor. 1998 , 273, 6228-32	108
1936	Ischemic Preconditioning: Role of Multiple Kinases in Signal Amplification and Modulation. 1998, 101-124	4
1935	Protein Kinases. 1998 , 2028-2033	
1934	Key effectors of signal transduction and G1 progression. 1998 , 74, 1-24	41
1933	Ambient temperature regulation of apoptosis in brown adipose tissue. Erk1/2 promotes norepinephrine-dependent cell survival. 1998 , 273, 30147-56	80
1932	Raf and fibroblast growth factor phosphorylate Elk1 and activate the serum response element of the immediate early gene pip92 by mitogen-activated protein kinase-independent as well as -dependent signaling pathways. 1998 , 18, 2272-81	65
1931	Structural determinants of SHP-2 function and specificity in Xenopus mesoderm induction. 1998 , 18, 161-77	115
1930	Detection of MAP Kinase Signaling. 1998 , 00, 14.3.1	1
1929	Resistance gene N-mediated de novo synthesis and activation of a tobacco mitogen-activated protein kinase by tobacco mosaic virus infection. 1998 , 95, 7433-8	255
1928	Mitogen-activated protein kinase and neural specification in Xenopus. 1998 , 95, 14833-8	27
1927	Bacterial phagocytosis activates extracellular signal-regulated kinase and p38 mitogen-activated protein kinase cascades in human neutrophils. 1998 , 64, 835-844	84
1926	Molecular basis for tissue expansion: clinical implications for the surgeon. 1998 , 102, 247-58	72
1925	Regulation of myogenesis by fibroblast growth factors requires beta-gamma subunits of pertussis toxin-sensitive G proteins. 1998 , 18, 5780-7	57

1924	Glycogen synthase kinase 3beta and extracellular signal-regulated kinase inactivate heat shock transcription factor 1 by facilitating the disappearance of transcriptionally active granules after heat shock. 1998 , 18, 6624-33	146
1923	Tumor promoter arsenite activates extracellular signal-regulated kinase through a signaling pathway mediated by epidermal growth factor receptor and Shc. 1998 , 18, 5178-88	136
1922	Mitogen-activated protein kinases and transcriptional responses in renal injury and repair. 1998 , 7, 425-33	22
1921	ErbB tyrosine kinases and the two neuregulin families constitute a ligand-receptor network. 1998 , 18, 6090-101	118
1920	Cyclic-GMP-dependent protein kinase inhibits the Ras/Mitogen-activated protein kinase pathway. 1998 , 18, 6983-94	97
1919	Activation of the Ras/mitogen-activated protein kinase pathway by kinase-defective epidermal growth factor receptors results in cell survival but not proliferation. 1998 , 18, 7192-204	89
1918	A conserved p38 mitogen-activated protein kinase pathway regulates Drosophila immunity gene expression. 1998 , 18, 3527-39	156
1917	The peripheral cannabinoid receptor, Cb2, in retrovirally-induced leukemic transformation and normal hematopoiesis. 1998 , 32, 29-43	23
1916	The tobacco wounding-activated mitogen-activated protein kinase is encoded by SIPK. 1998 , 95, 7225-30	223
1915	Nociception activates Elk-1 and Sap1a following expression of the ORL1 receptor in Chinese hamster ovary cells. 1998 , 9, 2703-8	16
1914	Mechanical influences on vascular smooth muscle cell function. 1998 , 16, 1921-9	152
1913	Nucleotide-binding properties of kinase-deficient epidermal-growth-factor-receptor mutants. 1998 , 330 (Pt 1), 353-9	12
1912	Bombesin stimulates cholecystokinin secretion through mitogen-activated protein-kinase-dependent and -independent mechanisms in the enteroendocrine STC-1 cell line. 1998 , 331 (Pt 1), 129-35	18
1911	Activation of mitogen-activated protein kinases (p38-MAPKs, SAPKs/JNKs and ERKs) by the G-protein-coupled receptor agonist phenylephrine in the perfused rat heart. 1998 , 332 (Pt 2), 459-65	75
1910	Stimulation of multiple mitogen-activated protein kinase sub-families by oxidative stress and phosphorylation of the small heat shock protein, HSP25/27, in neonatal ventricular myocytes. 1998 , 333 (Pt 3), 581-9	165
1909	Osmotic swelling-induced activation of the extracellular-signal-regulated protein kinases Erk-1 and Erk-2 in intestine 407 cells involves the Ras/Raf-signalling pathway. 1998 , 331 (Pt 3), 863-9	39
1908	Signal transduction by epidermal growth factor and heregulin via the kinase-deficient ErbB3 protein. 1998 , 334 (Pt 1), 189-95	91
1907	Phospholipid-Derived Second Messengers. 1998 , 255-291	

1906	Extracellular signal-regulated kinase (ERK) controls immediate early gene induction on corticostriatal stimulation. 1998 , 18, 8814-25	295	
1905	Osmotic stress induces both secretion and apoptosis in rat alveolar type II cells. 1998 , 275, L670-8	18	
1904	T cell signaling: effect of age. 1998 , 3, D1120-33	18	
1903	M1, M3 and M5 muscarinic receptors stimulate mitogen-activated protein kinase. 1998 , 56, 175-86	31	
1902	Role of AT1 and AT2 receptors in regulation of MAPKs and MKP-1 by ANG II in adult cardiac myocytes. 1998 , 275, H906-16	36	
1901	In vivo expression and regulation of Elk-1, a target of the extracellular-regulated kinase signaling pathway, in the adult rat brain. 1998 , 18, 214-26	142	
1900	Specific and differential activation of mitogen-activated protein kinase cascades by unfamiliar taste in the insular cortex of the behaving rat. 1998 , 18, 10037-44	253	
1899	Expression of the ErbB Family of Receptors in Ovarian Cancer. 1998 , 5, 161-165	10	
1898	Regional selective neuronal degeneration after protein phosphatase inhibition in hippocampal slice cultures: evidence for a MAP kinase-dependent mechanism. 1998 , 18, 7296-305	155	
1897	Activation of PDGF receptor alpha in vascular smooth muscle cells by mechanical stress. <i>FASEB Journal</i> , 1998 , 12, 1135-42	182	
1896	The polycystic kidney disease 1 gene product mediates protein kinase C alpha-dependent and c-Jun N-terminal kinase-dependent activation of the transcription factor AP-1. 1998 , 273, 6013-8	133	
1895	Extracellular-regulated protein kinase cascades are activated in response to injury in human skeletal muscle. 1998 , 275, C555-61	61	
1894	Sphingosylphosphorylcholine stimulates mitogen-activated protein kinase via a Ca2+-dependent pathway. 1998 , 275, C1255-63	57	
1893	Changes in PKC isoforms in human alveolar macrophages compared with blood monocytes. 1998 , 275, L389-97	39	
1892	Inactivation of kinase cascades in mesangial cells grown on collagen type I. 1998 , 275, F585-94	2	
1891	Dissociation of intracellular signaling pathways in response to partial agonist ligands of the T cell receptor. 1998 , 187, 1699-709	81	
1890	A role for PKC epsilon and MAP kinase in bradykinin-induced arachidonic acid release in rabbit CCD cells. 1998 , 274, F728-35	15	
1889	ATP-stimulated smooth muscle cell proliferation requires independent ERK and PI3K signaling pathways. 1998 , 275, H1209-15	39	

1888	Stimulation of p70S6 kinase via a growth hormone-controlled phosphatidylinositol 3-kinase pathway leads to the activation of a PDE4A cyclic AMP-specific phosphodiesterase in 3T3-F442A preadipocytes. 1998 , 95, 3549-54	60
1887	Does caloric restriction alter IL-2 transcription?. 1998 , 3, d125-35	11
1886	Down-Regulation of the Mitogen-Activated Protein Kinase Cascade Immediately Before Parturition in the Rat Myometrium. 1998 , 5, 304-310	2
1885	Skeletal muscle contractile activity in vitro stimulates mitogen-activated protein kinase signaling. 1999 , 277, C701-7	64
1884	Novel membrane-targeted ERK1 and ERK2 chimeras which act as dominant negative, isotype-specific mitogen-activated protein kinase inhibitors of Ras-Raf-mediated transcriptional activation of c-fos in NIH 3T3 cells. 1999 , 19, 8052-65	33
1883	Activation of the EGF receptor signaling pathway in human airway epithelial cells exposed to metals. 1999 , 277, L924-31	55
1882	Mechanisms of MAPK activation by bradykinin in vascular smooth muscle cells. 1999 , 277, C253-61	80
1881	Neurotrophin-3 contributes to the initiation of behavioral sensitization to cocaine by activating the Ras/Mitogen-activated protein kinase signal transduction cascade. 1999 , 19, 8685-95	141
1880	Differential regulation of MAP kinase by contraction and insulin in skeletal muscle: metabolic implications. 1999 , 277, E724-32	41
1879	Requirement of the MAP kinase cascade for cell cycle progression and differentiation of human intestinal cells. 1999 , 277, G631-41	59
1878	Mitogen-activated protein kinase pathway mediates hyperoxia-induced apoptosis in cultured macrophage cells. 1999 , 277, L589-95	47
1877	Lysophosphatidylcholine activates mesangial cell PKC and MAP kinase by PLCgamma-1 and tyrosine kinase-Ras pathways. 1999 , 277, F328-37	23
1876	The mitogen-activated protein kinase pathway mediates estrogen neuroprotection after glutamate toxicity in primary cortical neurons. 1999 , 19, 2455-63	511
1875	Adenovirus-mediated gene transfer of dominant negative Ha-Ras inhibits proliferation of primary meningioma cells. 1999 , 44, 579-87; discussion 587-8	30
1874	Differential roles of Ca(2+)/calmodulin-dependent protein kinase II and mitogen-activated protein kinase activation in hippocampal long-term potentiation. 1999 , 19, 8292-9	83
1873	P42/44 MAP kinase inhibitor PD98059 attenuates multiple forms of synaptic plasticity in rat dentate gyrus in vitro. 1999 , 81, 103-10	125
1872	Receptor-mediated signaling pathways: potential targets of modulation by dietary fatty acids. 1999 , 70, 545-56	76
1871	Ca(2+)-permeable AMPA receptors induce phosphorylation of cAMP response element-binding protein through a phosphatidylinositol 3-kinase-dependent stimulation of the mitogen-activated protein kinase signaling cascade in neurons. 1999 , 19, 5861-74	177

	Mitogen-activated protein kinase: conservation of a three-kinase module from yeast to human. 1999 , 79, 143-80	2203
	Cyclic Nucleotide Phosphodiesterases and Human Arterial Smooth Muscle Cell Proliferation. 1999 , 32, 424-434	32
	Distinct Roles of JNKs/p38 MAP Kinase and ERKs in Apoptosis and Survival of HCD-57 Cells Induced by Withdrawal or Addition of Erythropoietin. 1999 , 94, 4067-4076	43
1867	Mitogenic signaling by ATP/P2Y purinergic receptors in astrocytes: involvement of a calcium-independent protein kinase C, extracellular signal-regulated protein kinase pathway distinct from the phosphatidylinositol-specific phospholipase C/calcium pathway. 1999 , 19, 4211-20	184
	CD22 Cross-Linking Generates B-Cell Antigen Receptor-Independent Signals That Activate the JNK/SAPK Signaling Cascade. 1999 , 94, 1382-1392	71
	A 51 kDa Protein Kinase of Potato Activated with Hyphal Wall Components from Phytophthora nfestans. 1999 , 40, 825-831	18
	A high throughput system for the evaluation of protein kinase C inhibitors based on Elk1 transcriptional activation in human astrocytoma cells. 1999 , 14, 327-35	1
1863 l	Hyaluronan activates mitogen-activated protein kinase via Ras-signaling pathway. 1999 , 14, 733-8	5
	Glutamate induces phosphorylation of Elk-1 and CREB, along with c-fos activation, via an extracellular signal-regulated kinase-dependent pathway in brain slices. 1999 , 19, 136-46	278
	A role for the mitogen-activated protein kinase in mediating the ability of thyrotropin-releasing normone to stimulate the prolactin promoter. 1999 , 13, 1094-104	54
1×60	A truncated human peroxisome proliferator-activated receptor alpha splice variant with dominant negative activity. 1999 , 13, 1535-49	119
1859	nhibitory and stimulatory effects of somatostatin on two human pancreatic cancer cell lines: a primary role for tyrosine phosphatase SHP-1. 1999 , 140, 765-77	43
1858 I	Modulation of gonadotropin levels by peptides acting at the anterior pituitary gland. 1999 , 20, 46-67	100
1857	The N-Formyl Peptide Receptor. 1999 , 215-245	10
	Grc-family tyrosine kinases in activation of ERK-1 and p85/p110-phosphatidylinositol 3-kinase by G/CCKB receptors. 1999 , 274, 20657-63	96
	NSP1 defines a novel family of adaptor proteins linking integrin and tyrosine kinase receptors to the c-Jun N-terminal kinase/stress-activated protein kinase signaling pathway. 1999 , 274, 10047-52	61
1854 I	dentification of a cytoplasmic-retention sequence in ERK2. 1999 , 274, 30349-52	109
1853	Angiotensin II stimulates platelet-derived growth factor-B chain expression in newborn rat vascular smooth muscle cells and neointimal cells through Ras, extracellular signal-regulated protein kinase, and c-Jun N-terminal protein kinase mechanisms. 1999 , 85, 565-74	41

1852	Cyclic strain stress-induced mitogen-activated protein kinase (MAPK) phosphatase 1 expression in vascular smooth muscle cells is regulated by Ras/Rac-MAPK pathways. 1999 , 274, 25273-80	161
1851	Mitogen-activated protein kinase kinase 2 activation is essential for progression through the G2/M checkpoint arrest in cells exposed to ionizing radiation. 1999 , 274, 2732-42	103
1850	A dominant role for the Raf-MEK pathway in forskolin, 12-O-tetradecanoyl-phorbol acetate, and platelet-derived growth factor-induced CREB (cAMP-responsive element-binding protein) activation, uncoupled from serine 133 phosphorylation in NIH 3T3 cells. 1999 , 13, 1071-83	35
1849	Essential role of STAT3 for embryonic stem cell pluripotency. 1999 , 96, 2846-51	320
1848	The CD3-gamma delta epsilon transducing module mediates CD38-induced protein-tyrosine kinase and mitogen-activated protein kinase activation in Jurkat T cells. 1999 , 274, 20633-42	31
1847	Signal Transduction. 1999 , 303-334	
1846	Herpes simplex virus type 1 infection stimulates p38/c-Jun N-terminal mitogen-activated protein kinase pathways and activates transcription factor AP-1. 1999 , 274, 5097-103	135
1845	Transcriptional regulation of Fas gene expression by GA-binding protein and AP-1 in T cell antigen receptor.CD3 complex-stimulated T cells. 1999 , 274, 35203-10	31
1844	Molecular aspects of pancreatic cancer and future perspectives. 1999 , 16, 281-90	70
1843	Signal Transduction in Mast Cells and Basophils. 1999 ,	1
1843	Signal Transduction in Mast Cells and Basophils. 1999, Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999, 274, 13118-26	18
.5	Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999 , 274, 13118-26 Localization of the mixed-lineage kinase DLK/MUK/ZPK to the Golgi apparatus in NIH 3T3 cells.	
1842	Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999 , 274, 13118-26 Localization of the mixed-lineage kinase DLK/MUK/ZPK to the Golgi apparatus in NIH 3T3 cells.	18
1842	Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999 , 274, 13118-26 Localization of the mixed-lineage kinase DLK/MUK/ZPK to the Golgi apparatus in NIH 3T3 cells. 1999 , 47, 1287-96	18
1842 1841 1840	Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999, 274, 13118-26 Localization of the mixed-lineage kinase DLK/MUK/ZPK to the Golgi apparatus in NIH 3T3 cells. 1999, 47, 1287-96 A role for p38(MAPK)/HSP27 pathway in smooth muscle cell migration. 1999, 274, 24211-9 p70 S6 kinase-mediated protein synthesis is a critical step for vascular endothelial cell proliferation.	18 17 328
1842 1841 1840 1839	Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999, 274, 13118-26 Localization of the mixed-lineage kinase DLK/MUK/ZPK to the Golgi apparatus in NIH 3T3 cells. 1999, 47, 1287-96 A role for p38(MAPK)/HSP27 pathway in smooth muscle cell migration. 1999, 274, 24211-9 p70 S6 kinase-mediated protein synthesis is a critical step for vascular endothelial cell proliferation. 1999, 274, 26776-82 CPG16, a novel protein serine/threonine kinase downstream of cAMP-dependent protein kinase.	18 17 328 132
1842 1841 1840 1839 1838	Diminished G1 checkpoint after gamma-irradiation and altered cell cycle regulation by insulin-like growth factor II overexpression. 1999, 274, 13118-26 Localization of the mixed-lineage kinase DLK/MUK/ZPK to the Golgi apparatus in NIH 3T3 cells. 1999, 47, 1287-96 A role for p38(MAPK)/HSP27 pathway in smooth muscle cell migration. 1999, 274, 24211-9 p70 S6 kinase-mediated protein synthesis is a critical step for vascular endothelial cell proliferation. 1999, 274, 26776-82 CPG16, a novel protein serine/threonine kinase downstream of cAMP-dependent protein kinase. 1999, 274, 2631-6 A necessity for MAP kinase activation in mammalian spatial learning. 1999, 6, 478-90	18 17 328 132 50

1834	Feedback phosphorylation of an RGS protein by MAP kinase in yeast. 1999 , 274, 36387-91	60
1833	Activation of the 9E3/cCAF chemokine by phorbol esters occurs via multiple signal transduction pathways that converge to MEK1/ERK2 and activate the Elk1 transcription factor. 1999 , 274, 15454-65	16
1832	MEK1 protein kinase inhibition protects against damage resulting from focal cerebral ischemia. 1999 , 96, 12866-9	414
1831	Stress-induced phosphorylation of STAT1 at Ser727 requires p38 mitogen-activated protein kinase whereas IFN-gamma uses a different signaling pathway. 1999 , 96, 13956-61	231
1830	Development of a p38 Kinase Binding Assay for High Throughput Screening. 1999 , 4, 129-135	9
1829	Angiotensin II signaling in vascular smooth muscle cells under high glucose conditions. 1999 , 33, 378-84	92
1828	Serine phosphorylation and negative regulation of Stat3 by JNK. 1999 , 274, 31055-61	182
1827	Role of Ras/ERK-dependent pathway in the erythroid differentiation of K562 cells. 1999 , 31, 76-82	41
1826	ERK MAP kinase links cytokine signals to activation of latent HIV-1 infection by stimulating a cooperative interaction of AP-1 and NF-kappaB. 1999 , 274, 27981-8	154
1825	A novel PDZ domain containing guanine nucleotide exchange factor links heterotrimeric G proteins to Rho. 1999 , 274, 5868-79	317
1824	T cell antigen receptor-mediated activation of the Ras/mitogen-activated protein kinase pathway controls interleukin 4 receptor function and type-2 helper T cell differentiation. 1999 , 96, 1024-9	177
1823	Cell cycle and hormonal control of nuclear-cytoplasmic localization of the serum- and glucocorticoid-inducible protein kinase, Sgk, in mammary tumor cells. A novel convergence point of anti-proliferative and proliferative cell signaling pathways. 1999 , 274, 7253-63	104
1822	Adaptive increase of amino acid transport system A requires ERK1/2 activation. 1999, 274, 28922-8	63
1821	Membrane-targeted phosphatidylinositol 3-kinase mimics insulin actions and induces a state of cellular insulin resistance. 1999 , 274, 14306-14	83
1820	Transcriptional and posttranslational plasticity and the generation of inflammatory pain. 1999 , 96, 7723-30	466
1819	Suppression of p53-mediated growth factor withdrawal-induced apoptosis in the myeloid compartment by hematopoietic cytokines: an overview of hematopoiesis and apoptosis with a presentation of thrombopoietin and the M07E cell line as a model system. 1999 , 31, 169-91	9
1818	Hypothemycin inhibits the proliferative response and modulates the production of cytokines during T cell activation. 1999 , 44, 255-65	24
1817	Raf-1 and B-Raf proteins have similar regional distributions but differential subcellular localization in adult rat brain. 1999 , 11, 1995-2006	46

1816	Hydrogen peroxide activation of multiple mitogen-activated protein kinases in an oligodendrocyte cell line: role of extracellular signal-regulated kinase in hydrogen peroxide-induced cell death. 1999 , 72, 112-9	205
1815	Role of mitogen-activated protein kinases in activation-induced apoptosis of T cells. 1999 , 97, 26-35	43
1814	Mitogen-activated protein kinase Mkp1 of Pneumocystis carinii complements the slt2Delta defect in the cell integrity pathway of Saccharomyces cerevisiae. 1999 , 34, 451-62	33
1813	High glucose alters the response of mesangial cell protein kinase C isoforms to endothelin-1. 1999 , 55, 486-99	36
1812	TGF-beta1 activates MAP kinase in human mesangial cells: a possible role in collagen expression. 1999 , 56, 1710-20	163
1811	Mechanism of preventive effect of HMG-CoA reductase inhibitor on diabetic nephropathy. 1999 , 71, S178-81	23
1810	Nociceptive-specific activation of ERK in spinal neurons contributes to pain hypersensitivity. 1999 , 2, 1114-9	639
1809	Calcitonin gene-related peptide acts as a mitogen for human Gin-1 gingival fibroblasts by activating the MAP kinase signalling pathway. 1999 , 34, 160-8	31
1808	Regulation of vascular endothelial growth factor-dependent retinal neovascularization by insulin-like growth factor-1 receptor. 1999 , 5, 1390-5	450
1807	RAS mutations and clonality analysis in children with juvenile myelomonocytic leukemia (JMML). 1999 , 13, 32-7	166
1806	Identification of novel chromosomal rearrangements in acute myelogenous leukemia involving loci on chromosome 2p23, 15q22 and 17q21. 1999 , 13, 1534-8	17
1805	Constitutive activation of the 41-/43-kDa mitogen-activated protein kinase signaling pathway in human tumors. 1999 , 18, 813-22	583
1804	Attenuated expression of the serum responsive T1 gene in ras transformed fibroblasts due to the inhibition of c-fos gene activity. 1999 , 18, 1733-44	12
1803	Growth factors stimulate the activity of key glycolytic enzymes in isolated digestive gland cells from mussels (Mytilus galloprovincialis Lam.) through tyrosine kinase mediated signal transduction. 1999, 116, 241-8	30
1802	Cell-type-specific activation of p38 protein kinase cascades by the novel tumor promoter palytoxin. 1999 , 160, 109-19	19
1801	Elicitor- and A23187-induced expression of WCK-1, a gene encoding mitogen-activated protein kinase in wheat. 1999 , 40, 921-33	34
1800	Farnesyl protein transferase inhibitors and other therapies targeting the Ras signal transduction pathway. 1999 , 17, 241-58	81
1799	Signaling reactions induced in human fibroblasts during adhesion to cementum-derived attachment protein. 1999 , 14, 65-72	19

1798	The C-terminus of the kinase-defective neuregulin receptor ErbB-3 confers mitogenic superiority and dictates endocytic routing. 1999 , 18, 3348-58	77
1797	The nucleosomal response associated with immediate-early gene induction is mediated via alternative MAP kinase cascades: MSK1 as a potential histone H3/HMG-14 kinase. 1999 , 18, 4779-93	375
1796	Ectodomain shedding of TGF-alpha and other transmembrane proteins is induced by receptor tyrosine kinase activation and MAP kinase signaling cascades. 1999 , 18, 6962-72	205
1795	Tumor necrosis factor receptor and Fas signaling mechanisms. 1999 , 17, 331-67	1114
1794	Effect of hydrogen peroxide on the metabolism of articular chondrocytes. 1999 , 48, 399-403	36
1793	Introduction: STATs as essential intracellular mediators of cytokine responses. 1999 , 55, 1505-8	17
1792	Involvement of mitogen-activated protein kinase in hippocampal long-term potentiation. 1999 , 6, 409-17	31
1791	Involvement of a MAP kinase, ZmMPK5, in senescence and recovery from low-temperature stress in maize. 1999 , 262, 534-42	67
1790	Regulation of cytochrome P4501B1 (CYP1B1) in mouse embryo fibroblast (C3H10T1/2) cells by protein kinase C (PKC). 1999 , 57, 619-30	13
1789	Different sensitivities of p42 mitogen-activated protein kinase to phorbol ester and okadaic acid tumor promoters among cell types. 1999 , 58, 279-84	11
1788	Mitogen-activated protein kinase phosphatase: a negative regulator of the mitogen-activated protein kinase cascade. 1999 , 365, 1-7	94
1787	Nitric oxide and superoxide inhibit platelet-derived growth factor receptor phosphotyrosine phosphatases. 1999 , 26, 1544-53	50
1786	Activation of MAP kinases in growth responsive pancreatic cancer cells. 1999 , 11, 591-602	30
1785	Intracellular signalling pathways of okadaic acid leading to mitogenesis in Rat1 fibroblast overexpressing insulin receptors: okadaic acid regulates Shc phosphorylation by mechanisms independent of insulin. 1999 , 11, 797-803	5
1784	A scintillation proximity assay for the Raf/MEK/ERK kinase cascade: high-throughput screening and identification of selective enzyme inhibitors. 1999 , 268, 318-29	62
1783	Effects of cAMP on ERK mitogen-activated protein kinase activity in hepatocytes do not parallel the bidirectional regulation of DNA synthesis. 1999 , 23, 13-20	10
1782	Raf-1-induced cell cycle arrest in LNCaP human prostate cancer cells. 1999 , 72, 458-69	60
1781	An essential role for mitogen-activated protein kinases, ERKs, in preventing heat-induced cell death. 1999 , 74, 648-662	33

1780	Role of ERK and JNK pathways in regulating cell motility and matrix metalloproteinase 9 production in growth factor-stimulated human epidermal keratinocytes. 1999 , 180, 271-84	177
1779	Nuclear translocation of mitogen-activated protein kinase p42MAPK during the ongoing cell cycle. 1999 , 180, 325-33	40
1778	Association of apoptosis with the inhibition of extracellular signal egulated protein kinase activity in the tumor necrosis factor esistant ovarian carcinoma cell line UCI 101. 1999 , 25, 14-20	19
1777	Modulation of signal transduction pathways and global protein composition of macrophages by ionizing radiation. 1999 , 20, 962-8	1
1776	Rhes: A striatal-specific Ras homolog related to Dexras1. 1999 , 57, 782-788	85
1775	Activation of ERK1 and ERK2 is required for manganese-induced neurite outgrowth in rat pheochromocytoma (PC12) cells. 1999 , 57, 847-854	32
1774	Defective thymocyte maturation in p44 MAP kinase (Erk 1) knockout mice. 1999 , 286, 1374-7	544
1773	One-way cross-talk between p38(MAPK) and p42/44(MAPK). Inhibition of p38(MAPK) induces low density lipoprotein receptor expression through activation of the p42/44(MAPK) cascade. 1999 , 274, 19593-600	131
1772	Perception and transduction of ethylene. 1999 , 475-490	
1771	Molecular Events in Growth HormoneReceptor Interaction and Signaling. 1999 , 445-480	3
1771 1770		3
• •		
1770	Salicylic acid: signal perception and transduction. 1999 , 33, 513-541 Specific activation of the p38 mitogen-activated protein kinase signaling pathway and induction of	46
1770 1769	Salicylic acid: signal perception and transduction. 1999 , 33, 513-541 Specific activation of the p38 mitogen-activated protein kinase signaling pathway and induction of neurite outgrowth in PC12 cells by bone morphogenetic protein-2. 1999 , 274, 26503-10 Comparative study of the effects of polyunsaturated fatty acids and their metabolites on cell	46 173
1770 1769 1768	Salicylic acid: signal perception and transduction. 1999, 33, 513-541 Specific activation of the p38 mitogen-activated protein kinase signaling pathway and induction of neurite outgrowth in PC12 cells by bone morphogenetic protein-2. 1999, 274, 26503-10 Comparative study of the effects of polyunsaturated fatty acids and their metabolites on cell growth and tyrosine kinase activity in oesophageal carcinoma cells. 1999, 61, 171-82	46 173 12
1770 1769 1768	Salicylic acid: signal perception and transduction. 1999, 33, 513-541 Specific activation of the p38 mitogen-activated protein kinase signaling pathway and induction of neurite outgrowth in PC12 cells by bone morphogenetic protein-2. 1999, 274, 26503-10 Comparative study of the effects of polyunsaturated fatty acids and their metabolites on cell growth and tyrosine kinase activity in oesophageal carcinoma cells. 1999, 61, 171-82 Making new connections: role of ERK/MAP kinase signaling in neuronal plasticity. 1999, 23, 11-4 Insulin effects on extracellular signal regulated kinase cascade in fetal rat astrocyte cell cultures.	46 173 12 531
1770 1769 1768 1767 1766	Salicylic acid: signal perception and transduction. 1999, 33, 513-541 Specific activation of the p38 mitogen-activated protein kinase signaling pathway and induction of neurite outgrowth in PC12 cells by bone morphogenetic protein-2. 1999, 274, 26503-10 Comparative study of the effects of polyunsaturated fatty acids and their metabolites on cell growth and tyrosine kinase activity in oesophageal carcinoma cells. 1999, 61, 171-82 Making new connections: role of ERK/MAP kinase signaling in neuronal plasticity. 1999, 23, 11-4 Insulin effects on extracellular signal regulated kinase cascade in fetal rat astrocyte cell cultures. 1999, 268, 1-4 Differential activation of c-Jun N-terminal protein kinase and p38 in rat hippocampus and	46 173 12 531 5

1762	Unilateral arthritis: contralateral effects. 1999 , 22, 495-6	35
1761	Dose-dependent impairment of inhibitory avoidance retention in rats by immediate post-training infusion of a mitogen-activated protein kinase kinase inhibitor into cortical structures. 1999 , 105, 219-23	44
1760	Signal perception and transduction: the role of protein kinases. 1999 , 1449, 1-24	147
1759	Effect of inhibition of cholesterol synthetic pathway on the activation of Ras and MAP kinase in mesangial cells. 1999 , 1449, 137-49	30
1758	Stress-induced glucose uptake in bovine chromaffin cells: a comparison of the effect of arsenite and anisomycin. 1999 , 1452, 313-21	8
1757	The p38 mitogen-activated protein kinase cascade is not required for the stimulation of insulin secretion from rat islets of Langerhans. 1999 , 148, 29-35	8
1756	Androgen stimulates mitogen-activated protein kinase in human breast cancer cells. 1999 , 152, 199-206	53
1755	Molecular pathways mediating activation by kainate of mitogen-activated protein kinase in oligodendrocyte progenitors. 1999 , 66, 50-61	30
1754	Altered Gq/G11 guanine nucleotide regulatory protein expression in a rat model of hepatocellular carcinoma: role in mitogenesis. 1999 , 29, 371-8	11
1753	The shedding of membrane-anchored heparin-binding epidermal-like growth factor is regulated by the Raf/mitogen-activated protein kinase cascade and by cell adhesion and spreading. 1999 , 274, 28828-35	149
1752	Fibroblast growth factor promotes recruitment of skeletal muscle satellite cells in young and old rats. 1999 , 47, 23-42	166
1751	Crosstalk between protein kinase A and growth factor receptor signaling pathways in arterial smooth muscle. 1999 , 11, 465-77	111
1750	Thrombospondin-1 regulation of smooth muscle cell chemotaxis is extracellular signal-regulated protein kinases 1/2 dependent. 1999 , 126, 203-207	37
1749	Mitogen-activated protein kinases signal inhibition of apoptosis in lipopolysaccharide-stimulated neutrophils. 1999 , 126, 406-412	46
1748	Differential signalling by variant ligands of the T cell receptor and the kinetic model of T cell activation. 1999 , 64, 717-31	15
1747	Inhibition of insulin-like growth factor-I mitogenic action by zinc chelation is associated with a decreased mitogen-activated protein kinase activation in RAT-1 fibroblasts. 1999 , 449, 284-8	17
1746	Troglitazone inhibits angiotensin II-induced extracellular signal-regulated kinase 1/2 nuclear translocation and activation in vascular smooth muscle cells. 1999 , 452, 277-82	49
1745	Examination of the signal transduction pathways leading to activation of extracellular signal-regulated kinase by formyl-methionyl-leucyl-phenylalanine in rat neutrophils. 1999 , 454, 165-8	35

1744	MAP kinase activation by mu opioid receptor involves phosphatidylinositol 3-kinase but not the cAMP/PKA pathway. 1999 , 456, 196-200	28
1743	Transient Ca2+-dependent activation of ERK1 and ERK2 in cytotoxic responses induced by maitotoxin in breast cancer cells. 1999 , 458, 137-40	9
1742	Anisomycin does not activate p38MAPK in human platelets. 1999 , 96, 27-35	7
1741	MAPKinase and regulation of the sodium-proton exchanger in human red blood cell. 1999 , 1421, 140-8	23
1740	Low-density lipoprotein activates Jun N-terminal kinase (JNK) in human endothelial cells. 1999 , 1436, 557-64	17
1739	Sepsis and cholestasis. 1999 , 3, 465-75	41
1738	Role of extracellular matrix and Ras in regulation of glomerular epithelial cell proliferation. 1999 , 154, 899-908	10
1737	Induction of apoptotic cell death in vascular endothelial cells cultured in three-dimensional collagen lattice. 1999 , 248, 498-508	53
1736	Signal transduction in the erythropoietin receptor system. 1999 , 253, 143-56	193
1735	Integrin signaling at the M/G1 transition induces expression of cyclin E. 1999 , 253, 422-31	19
1734	A novel ribosomal S6-kinase (RSK4; RPS6KA6) is commonly deleted in patients with complex X-linked mental retardation. 1999 , 62, 332-43	91
1733	Pro-inflammatory cytokines stimulate mitogen-activated protein kinase subfamilies, increase phosphorylation of c-Jun and ATF2 and upregulate c-Jun protein in neonatal rat ventricular myocytes. 1999 , 31, 2087-99	61
1732	Sodium salicylate inhibits macrophage TNF-alpha production and alters MAPK activation. 1999 , 84, 143-9	25
1731	G protein-mediated mitogen-activated protein kinase activation by two dopamine D2 receptors. 1999 , 256, 33-40	72
1730	Thrombopoietin potentiates agonist-stimulated activation of p38 mitogen-activated protein kinase in human platelets. 1999 , 261, 58-63	10
1729	Modulation of mitogen-activated protein kinase activation and cell cycle regulators by the potent skin cancer preventive agent silymarin. 1999 , 263, 528-36	57
1728	Inhibition of cell death in human mammary epithelial cells by the cooked meat-derived carcinogen 2-amino-1-methyl-6-phenylimidazo[4, 5-b]pyridine. 1999 , 266, 203-7	11
1727	Protein kinase c-dependent pathway is critical for the production of pro-inflammatory cytokines (TNF-alpha, IL-1beta, IL-6). 1999 , 11, 839-48	64

1726	Independent regulation of cyclo-oxygenase 2 expression by p42/44 mitogen-activated protein kinases and Ca2+/calmodulin-dependent kinase. 1999 , 339, 329-334	23
1725	Extracellular matrix and integrin signalling: the shape of things to come. 1999 , 339, 481-488	449
1724	Functional co-operation between the subunits in heterodimeric platelet-derived growth factor receptor complexes. 1999 , 341, 523-528	15
1723	Independent regulation of cyclo-oxygenase 2 expression by p42/44 mitogen-activated protein kinases and Ca2+/calmodulin-dependent kinase. 1999 , 339, 329	15
1722	Extracellular matrix and integrin signalling: the shape of things to come. 1999 , 339, 481	197
1721	Functional co-operation between the subunits in heterodimeric platelet-derived growth factor receptor complexes. 1999 , 341, 523	4
1720	Trophic signaling pathways activated by purinergic receptors in rat and human astroglia. 1999 , 120, 323-32	32
1719	CBP associates with the p42/p44 MAPK enzymes and is phosphorylated following NGF treatment. 1999 , 10, 1239-43	48
1718	Neu differentiation factor stimulates phosphorylation and activation of the Sp1 transcription factor. 1999 , 19, 1961-72	83
1717	LDL stimulates mitogen-activated protein kinase phosphatase-1 expression, independent of LDL receptors, in vascular smooth muscle cells. 1999 , 19, 1862-71	34
1716	Hypergravity stimulates collagen synthesis in human osteoblast-like cells: evidence for the involvement of p44/42 MAP-kinases (ERK 1/2). 1999 , 126, 676-82	48
1715	ERK/MAP kinase is chronically activated in human reactive astrocytes. 1999 , 10, 3567-72	78
1714	Confluence of vascular endothelial cells induces cell cycle exit by inhibiting p42/p44 mitogen-activated protein kinase activity. 1999 , 19, 2763-72	88
1713	Cellular activation triggered by the autosomal dominant polycystic kidney disease gene product PKD2. 1999 , 19, 3423-34	57
1712	Cell cycle arrest and reversion of Ras-induced transformation by a conditionally activated form of mitogen-activated protein kinase kinase kinase 3. 1999 , 19, 3857-68	78
1711	Role of phosphoinositide 3-kinase in activation of ras and mitogen-activated protein kinase by epidermal growth factor. 1999 , 19, 4279-88	245
1710	A single amino acid substitution in the v-Eyk intracellular domain results in activation of Stat3 and enhances cellular transformation. 1999 , 19, 1401-9	108
1709	Engagement of the cellular receptor for glycoprotein B of human cytomegalovirus activates the interferon-responsive pathway. 1999 , 19, 3607-13	180

1708	Cell-extracellular matrix interactions stimulate the AP-1 transcription factor in an integrin-linked kinase- and glycogen synthase kinase 3-dependent manner. 1999 , 19, 7420-7	145
1707	Mechanical Factors and Vascular Biology. 1999 , 71-100	1
1706	Intracellular signaling in rat cultured vascular smooth muscle cells: roles of nuclear factor-kappaB and p38 mitogen-activated protein kinase on tumor necrosis factor-alpha production. 1999 , 140, 3562-72	50
1705	BWMK1, a novel MAP kinase induced by fungal infection and mechanical wounding in rice. 1999 , 12, 1064-73	109
1704	Reactive oxygen species as mediators of UVB-induced mitogen-activated protein kinase activation in keratinocytes. 2001 , 29, 114-27	16
1703	ATMPK4, an Arabidopsis homolog of mitogen-activated protein kinase, is activated in vitro by AtMEK1 through threonine phosphorylation. 2000 , 122, 1301-10	131
1702	Molecular cloning and characterization of a tobacco MAP kinase kinase that interacts with SIPK. 2000 , 13, 118-24	49
1701	Specific role of the extracellular signal-regulated kinase pathway in angiotensin II-induced cardiac hypertrophy in vitro. 2000 , 347, 275	27
1700	Involvement of proline-rich tyrosine kinase 2 in platelet activation: tyrosine phosphorylation mostly dependent on alphaIIbbeta3 integrin and protein kinase C, translocation to the cytoskeleton and association with Shc through Grb2. 2000 , 347, 561-9	18
1699	The m3 muscarinic acetylcholine receptor is coupled to mitogen-activated protein kinase via protein kinase C and epidermal growth factor receptor kinase. 2000 , 348, 381	19
1698	Specific role of the extracellular signal-regulated kinase pathway in angiotensin II-induced cardiac hypertrophy in vitro. 2000 , 347, 275-284	84
1697	Involvement of proline-rich tyrosine kinase 2 in platelet activation: tyrosine phosphorylation mostly dependent on 日内 integrin and protein kinase C, translocation to the cytoskeleton and association with Shc through Grb2. 2000 , 347, 561-569	39
1696	The m3 muscarinic acetylcholine receptor is coupled to mitogen-activated protein kinase via protein kinase C and epidermal growth factor receptor kinase. 2000 , 348, 381-387	66
1695	Extracellular S100B protein modulates ERK in astrocyte cultures. 2000 , 11, 807-9	56
1694	Molecular mechanisms in intimal hyperplasia. 2000 , 190, 300-9	440
1693	Intestinal cell kinase (ICK) localizes to the crypt region and requires a dual phosphorylation site found in map kinases. 2000 , 183, 129-39	40
1692	Tyrosine phosphorylation of p125(Fak), p130(Cas), and paxillin does not require extracellular signal-regulated kinase activation in Swiss 3T3 cells stimulated by bombesin or platelet-derived growth factor. 2000 , 183, 208-20	15
1691	Potential prognostic value of mitogen-activated protein kinase activity for disease-free survival of primary breast cancer patients. 2000 , 89, 384-8	111

1690	Integrin-mediated signaling regulates AP-1 transcription factors and proliferation in osteoblasts. 2000 , 52, 725-37	86
1689	Integrin-mediated signaling in osteoblasts on titanium implant materials. 2000 , 52, 738-47	76
1688	Pervanadate induces the hyperphosphorylation but not the activation of human heat shock factor 1. 2000 , 185, 348-57	16
1687	Ratiometric assay of epidermal growth factor receptor tyrosine kinase activation. 2000 , 277, 135-42	15
1686	Heat shock-induced actin polymerization, SAPK/JNK activation, and heat-shock protein expression are mediated by genistein-sensitive tyrosine kinase(s) in K562 cells. 2000 , 24, 447-57	15
1685	CD69-triggered ERK activation and functions are negatively regulated by CD94 / NKG2-A inhibitory receptor. 2000 , 30, 644-51	56
1684	Cisplatin-induced response of c-jun N-terminal kinase 1 and extracellular signal-regulated protein kinases 1 and 2 in a series of cisplatin-resistant ovarian carcinoma cell lines. 2000 , 29, 219-228	58
1683	Activation of extracellular signal-regulated kinases (ERK 44/42) by chlorpyrifos oxon in Chinese hamster ovary cells. 2000 , 14, 346-53	18
1682	1alpha,25-dihydroxyvitamin D3 induced differentiation of cultured human keratinocytes is accompanied by a PKC-independent regulation of AP-1 DNA binding activity. 2000 , 114, 1174-9	28
1681	Oxalate-induced ceramide accumulation in Madin-Darby canine kidney and LLC-PK1 cells. 2000 , 57, 2403-11	31
1680	Mechanism of transforming growth factor- signaling: Role of the mitogen-activated protein kinase. 2000 , 58, S53-S58	46
1679	Angiotensin II-induced growth of vascular smooth muscle cells requires an Src-dependent activation of the epidermal growth factor receptor. 2000 , 58, 549-58	98
1678	Differential signalling of the chemokine receptor CXCR4 by stromal cell-derived factor 1 and the HIV glycoprotein in rat neurons and astrocytes. 2000 , 12, 117-25	127
1677	Age-related impairment in LTP is accompanied by enhanced activity of stress-activated protein kinases: analysis of underlying mechanisms. 2000 , 12, 345-52	105
1676	Chaperones in cell cycle regulation and mitogenic signal transduction: a review. 2000 , 33, 341-65	219
1675	Insulin activates p38 mitogen-activated protein (MAP) kinase via a MAP kinase kinase (MKK) 3/MKK 6 pathway in vascular smooth muscle cells. 2000 , 30, 668-77	31
1674	Multiple levels of tobacco WIPK activation during the induction of cell death by fungal elicitins. 2000 , 23, 339-47	135
1673	The major site of the pti1 kinase phosphorylated by the pto kinase is located in the activation domain and is required for pto-pti1 physical interaction. 2000 , 267, 171-8	31

1672	Synthesis and structure-activity relationships of 3-cyano-4-(phenoxyanilino)quinolines as MEK (MAPKK) inhibitors. 2000 , 10, 2825-8	49
1671	Activation of mitogen-activated protein kinases after permanent cerebral artery occlusion in mouse brain. 2000 , 20, 1320-30	111
1670	Retroviral gene transfer of dominant negative raf-1 mutants suppresses ha-ras-induced transformation and delays tumor formation. 2000 , 7, 697-706	6
1669	The MAP-kinase ERK2 is a specific substrate of the protein tyrosine phosphatase HePTP. 2000 , 19, 858-69	38
1668	Specific inhibition of FGF-induced MAPK activation by the receptor-like protein tyrosine phosphatase LAR. 2000 , 19, 2346-53	22
1667	Growth factor-dependent activation of the Ras-Raf-MEK-MAPK pathway in the human pancreatic carcinoma cell line PANC-1 carrying activated K-ras: implications for cell proliferation and cell migration. 2000 , 19, 2930-42	96
1666	TGFbeta1 represses proliferation of pancreatic carcinoma cells which correlates with Smad4-independent inhibition of ERK activation. 2000 , 19, 4531-41	66
1665	P(2Y) purinoceptor subtypes recruit different mek activators in astrocytes. 2000 , 129, 927-36	84
1664	Investigation into the involvement of phospholipases A(2) and MAP kinases in modulation of AA release and cell growth in A549 cells. 2000 , 131, 255-65	28
1663	Nifedipine suppresses neointimal thickening by its inhibitory effect on vascular smooth muscle cell growth via a MEK-ERK pathway coupling with Pyk2. 2000 , 131, 1521-30	36
1662	Protein phosphorylation cascades associated with methamphetamine-induced glial activation. 2000 , 914, 238-62	75
1661	Oxidative stress and gene regulation. 2000 , 28, 463-99	981
1660	Selective protein kinase inhibitors block head-specific differentiation in hydra. 2000 , 12, 649-58	25
1659	The inhibition of ERK/MAPK not the activation of JNK/SAPK is primarily required to induce apoptosis in chronic myelogenous leukemic K562 cells. 2000 , 24, 527-34	82
1658	The Raf signal transduction cascade as a target for chemotherapeutic intervention in growth factor-responsive tumors. 2000 , 88, 229-79	77
1657	Neurotrophic effect of basic fibroblast growth factor is mediated by the p42/p44 mitogen-activated protein kinase cascade in cultured rat cortical neurons. 2000 , 122, 81-5	50
1656	Signaling angiogenesis via p42/p44 MAP kinase and hypoxia. 2000 , 60, 1171-8	168
1655	Inhibitors of Ras signal transduction as antitumor agents. 2000 , 60, 1165-9	42

1654	Involvement of the extracellular signal-regulated protein kinase (ERK) pathway in the induction of apoptosis by cadmium chloride in CCRF-CEM cells. 2000 , 60, 1875-82	71
1653	Potentiation of nerve growth factor-action by picrosides I and II, natural iridoids, in PC12D cells. 2000 , 406, 203-8	52
1652	Role of MAP kinase in the enhanced cell proliferation of long term estrogen deprived human breast cancer cells. 2000 , 62, 167-75	79
1651	Aminopeptidase N/CD13 is directly linked to signal transduction pathways in monocytes. 2000 , 201, 22-32	101
1650	Expression of delta opioid receptors by splenocytes from SEB-treated mice and effects on phosphorylation of MAP kinase. 2000 , 205, 84-93	24
1649	Effects of extracellular matrix on phenotype modulation and MAPK transduction of rat aortic smooth muscle cells in vitro. 2000 , 69, 79-90	41
1648	Development of brain injury in mice by Angiostrongylus cantonensis infection is associated with the induction of transcription factor NF-kappaB, nuclear protooncogenes, and protein tyrosine phosphorylation. 2000 , 95, 202-8	12
1647	Role of the tyrosine kinase JAK2 in signal transduction by growth hormone. 2000 , 14, 550-7	46
1646	Role of BMK1 in regulation of growth factor-induced cellular responses. 2000 , 21, 233-7	48
1645	Structure and function of adenosine receptors and their genes. 2000 , 362, 364-74	422
,,	Structure and function of adenosine receptors and their genes. 2000 , 362, 364-74 Heat shock effects on cell cycle progression. 2000 , 57, 450-63	422 90
,,	Heat shock effects on cell cycle progression. 2000 , 57, 450-63	
1644	Heat shock effects on cell cycle progression. 2000 , 57, 450-63 The role of protein kinase C in the regulation of cell growth and in signalling to the cell nucleus.	90
1644	Heat shock effects on cell cycle progression. 2000 , 57, 450-63 The role of protein kinase C in the regulation of cell growth and in signalling to the cell nucleus. 2000 , 126, 1-11 Biochemical characterization of mitogen-activated protein (MAP) kinase activity in Toxoplasma	90
1644 1643 1642	Heat shock effects on cell cycle progression. 2000, 57, 450-63 The role of protein kinase C in the regulation of cell growth and in signalling to the cell nucleus. 2000, 126, 1-11 Biochemical characterization of mitogen-activated protein (MAP) kinase activity in Toxoplasma gondii. 2000, 86, 588-98	90 74 13
1644 1643 1642	Heat shock effects on cell cycle progression. 2000, 57, 450-63 The role of protein kinase C in the regulation of cell growth and in signalling to the cell nucleus. 2000, 126, 1-11 Biochemical characterization of mitogen-activated protein (MAP) kinase activity in Toxoplasma gondii. 2000, 86, 588-98 Mitochondrial role in life and death of the cell. 2000, 7, 2-15	90 74 13 223
1644 1643 1642 1641 1640	Heat shock effects on cell cycle progression. 2000, 57, 450-63 The role of protein kinase C in the regulation of cell growth and in signalling to the cell nucleus. 2000, 126, 1-11 Biochemical characterization of mitogen-activated protein (MAP) kinase activity in Toxoplasma gondii. 2000, 86, 588-98 Mitochondrial role in life and death of the cell. 2000, 7, 2-15 Laparoscopic surgery and Kupffer cell activation. 2000, 14, 1171-6 Immunohistochemical localization of mitogen-activated protein kinase (MAPK) family and	90 74 13 223

1636	Butyrate-induced erythroid differentiation of human K562 leukemia cells involves inhibition of ERK and activation of p38 MAP kinase pathways. 2000 , 95, 2391-2396	183
1635	Involvement of the extracellular signal-regulated kinase cascade for cocaine-rewarding properties. 2000 , 20, 8701-9	452
1634	Activation of mitogen-activated protein kinases after transient forebrain ischemia in gerbil hippocampus. 2000 , 20, 4506-14	224
1633	Significance of ERK cascade compared with JAK/STAT and PI3-K pathway in gp130-mediated cardiac hypertrophy. 2000 , 279, H1635-44	60
1632	Activation of extracellular signal-regulated protein kinases is associated with a sensitized locomotor response to D(2) dopamine receptor stimulation in unilateral 6-hydroxydopamine-lesioned rats. 2000 , 20, 1849-57	66
1631	Protein kinase C-mediated in vitro invasion of human glioma cells through extracellular-signal-regulated kinase and ornithine decarboxylase. 2000 , 68, 113-23	19
1630	Differential expression of cell-cell adhesion proteins and cyclin D in MEK1-transdifferentiated MDCK cells. 2000 , 279, C1472-82	14
1629	Fluid flow activates a regulator of translation, p70/p85 S6 kinase, in human endothelial cells. 2000 , 278, H1537-44	55
1628	Interleukin-1beta induces apoptosis in GL15 glioblastoma-derived human cell line. 2000 , 279, C2043-9	19
1627	Induction of transcriptional activity of AP-1 and NF-kappaB in the gastric mucosa during aging. 2000 , 278, G855-65	37
1626	The inhibitory effect of interleukin-1beta on long-term potentiation is coupled with increased activity of stress-activated protein kinases. 2000 , 20, 6811-9	206
1625	ACE-Hemmer und arterielle Geftwand. 2000 , 20, 192-194	
1624	Human Adenosine A1, A2A, A2B, and A3 Receptors Expressed in Chinese Hamster Ovary Cells All Mediate the Phosphorylation of Extracellular-Regulated Kinase 1/2. 2000 , 58, 477-482	364
1623	Activation of the luteinizing hormone beta promoter by gonadotropin-releasing hormone requires c-Jun NH2-terminal protein kinase. 2000 , 275, 21639-47	74
1622	ERK1b, a 46-kDa ERK isoform that is differentially regulated by MEK. 2000 , 275, 15799-808	59
1621	The mechanism of heat shock activation of ERK mitogen-activated protein kinases in the interleukin 3-dependent ProB cell line BaF3. 2000 , 275, 40856-66	33
1620	Phosphorylation of paxillin via the ERK mitogen-activated protein kinase cascade in EL4 thymoma cells. 2000 , 275, 11333-40	52
1619	Erk1/2-dependent phosphorylation of Galpha-interacting protein stimulates its GTPase accelerating activity and autophagy in human colon cancer cells. 2000 , 275, 39090-5	241

1618	Protein kinase C-beta and oxygen deprivation. A novel Egr-1-dependent pathway for fibrin deposition in hypoxemic vasculature. 2000 , 275, 11921-8	40
1617	Bradykinin-regulated interactions of the mitogen-activated protein kinase pathway with the endothelial nitric-oxide synthase. 2000 , 275, 30707-15	150
1616	Synergistic interaction of MEK kinase 2, c-Jun N-terminal kinase (JNK) kinase 2, and JNK1 results in efficient and specific JNK1 activation. 2000 , 20, 2334-42	69
1615	Effect of extracellular signal-regulated kinase on p53 accumulation in response to cisplatin. 2000 , 275, 35778-85	221
1614	The requirement of both extracellular regulated kinase and p38 mitogen-activated protein kinase for stimulation of cytosolic phospholipase A(2) activity by either FcgammaRIIA or FcgammaRIIIB in human neutrophils. A possible role for Pyk2 but not for the Grb2-Sos-Shc complex. 2000 , 275, 12416-23	54
1613	Inducible nitric oxide synthase (iNOS) expression upregulates p21 and inhibits vascular smooth muscle cell proliferation through p42/44 mitogen-activated protein kinase activation and independent of p53 and cyclic guanosine monophosphate. 2000 , 31, 1214-28	103
1612	Circadian activation of bullfrog retinal mitogen-activated protein kinase associates with oscillator function. 2000 , 275, 37078-85	19
1611	Bile acid-induced activation of activator protein-1 requires both extracellular signal-regulated kinase and protein kinase C signaling. 2000 , 275, 15090-8	88
1610	Signaling from E-cadherins to the MAPK pathway by the recruitment and activation of epidermal growth factor receptors upon cell-cell contact formation. 2000 , 275, 41227-33	274
1609	Identification of a human brain-specific isoform of mammalian STE20-like kinase 3 that is regulated by cAMP-dependent protein kinase. 2000 , 275, 2513-9	35
1608	Interferon-alpha2b reduces phosphorylation and activity of MEK and ERK through a Ras/Raf-independent mechanism. 2000 , 83, 532-8	28
1607	Selective activation of endothelial cells by the antioxidant pyrrolidine dithiocarbamate: involvement of C-jun N-terminal kinase and AP-1 activation. 2000 , 7, 121-33	9
1606	Activation of JNK and p38 in rat hippocampus after kainic acid induced seizure. 2000 , 32, 227-30	60
1605	The effect of angiotensin II on mitogen-activated protein kinase in human cardiomyocytes. 2000 , 1, 379-84	13
1604	Ras/Rac-Dependent activation of p38 mitogen-activated protein kinases in smooth muscle cells stimulated by cyclic strain stress. 2000 , 20, E1-9	69
1603	Transactivation of naturally occurring HIV-1 long terminal repeats by the JNK signaling pathway. The most frequent naturally occurring length polymorphism sequence introduces a novel binding site for AP-1 factors. 2000 , 275, 20382-90	14
1602	Induction of cell cornification and enhanced squamous-cell marker SPRR1 gene expression by phorbol ester are regulated by different signaling pathways in human conducting airway epithelial cells. 2000 , 22, 597-603	11
1601	Estradiol hypersensitivity and mitogen-activated protein kinase expression in long-term estrogen deprived human breast cancer cells in vivo. 2000 , 141, 396-405	145

1600	Adrenergic regulation of mitogen-activated protein kinase in rat pinealocytes: opposing effects of protein kinase A and protein kinase G. 2000 , 141, 4496-502	32
1599	Osmotic Stress Induces Rapid Activation of a Salicylic Acid-Induced Protein Kinase and a Homolog of Protein Kinase ASK1 in Tobacco Cells. 2000 , 12, 165	4
1598	The critical role of Shc in insulin-like growth factor-I-mediated mitogenesis and differentiation in 3T3-L1 preadipocytes. 2000 , 14, 805-13	93
1597	Obligate mitogen-activated protein kinase activation in parathyroid hormone stimulation of calcium transport but not calcium signaling. 2000 , 141, 4185-93	29
1596	p38MAPK inhibition enhances basal and norepinephrine-stimulated p42/44MAPK phosphorylation in rat pinealocytes. 2000 , 141, 4202-8	15
1595	Atypical protein kinase C-zeta stimulates thyrotropin-independent proliferation in rat thyroid cells. 2000 , 141, 146-52	14
1594	Differential regulation of mitogen-activated protein kinase-responsive genes by the duration of a calcium signal. 2000 , 14, 1570-82	40
1593	Arsenite induces apoptosis of murine T lymphocytes through membrane raft-linked signaling for activation of c-Jun amino-terminal kinase. 2000 , 165, 4290-7	99
1592	Protein kinases in the plant defense response. 2000 , 32, 379-404	13
1591	Regulation of mitogen-activated protein kinase signaling networks by G protein-coupled receptors. 2000 , 2000, re1	158
1590	Hyperexpression and activation of extracellular signal-regulated kinases (ERK1/2) in atherosclerotic lesions of cholesterol-fed rabbits. 2000 , 20, 18-26	53
1589	Activation of mitogen-activated protein kinases in human heart during cardiopulmonary bypass. 2000 , 86, 1004-7	57
1588	Selenite inhibits the c-Jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK) through a thiol redox mechanism. 2000 , 275, 2527-31	97
1587	Early activation of the multicomponent signaling complex associated with focal adhesion kinase induced by pressure overload in the rat heart. 2000 , 87, 558-65	115
1586	Two independent signaling pathways mediate the antiapoptotic action of macrophage-stimulating protein on epithelial cells. 2000 , 20, 2218-27	99
1585	[D-Arg(1),D-Trp(5,7,9),Leu(11)]Substance P inhibits bombesin-induced mitogenic signal transduction mediated by both G(q) and G(12) in Swiss 3T3cells. 2000 , 275, 30644-52	21
1584	Multiple Ras-dependent phosphorylation pathways regulate Myc protein stability. 2000 , 14, 2501-14	892
1583	Restoration of tight junction structure and barrier function by down-regulation of the mitogen-activated protein kinase pathway in ras-transformed Madin-Darby canine kidney cells. 2000 , 11, 849-62	228

1582	IFN-alpha 2b reduces IL-2 production and IL-2 receptor function in primary CD4+ T cells. 2000 , 164, 2296-302	35
1581	TAK1 participates in c-Jun N-terminal kinase signaling during Drosophila development. 2000 , 20, 3015-26	104
1580	Prolactin-releasing peptide activation of the prolactin promoter is differentially mediated by extracellular signal-regulated protein kinase and c-Jun N-terminal protein kinase. 2000 , 275, 3667-74	37
1579	Beta 3- and alpha1-adrenergic Erk1/2 activation is Src- but not Gi-mediated in Brown adipocytes. 2000 , 275, 22670-7	72
1578	Cellular and Molecular Basis of Stress Heart. 2000 , 1, 113-127	
1577	Stimulation of p38 mitogen-activated protein kinase is an early regulatory event for the cadmium-induced apoptosis in human promonocytic cells. 2000 , 275, 11418-24	145
1576	c-Jun activation-dependent tumorigenic transformation induced paradoxically by overexpression or block of S-adenosylmethionine decarboxylase. 2000 , 151, 801-10	24
1575	c-Jun NH2-terminal kinase targeting and phosphorylation of heat shock factor-1 suppress its transcriptional activity. 2000 , 275, 18210-8	104
1574	Characterization of a panel of insertion mutants in human cytomegalovirus glycoprotein B. 2000 , 74, 1383-92	21
1573	Calcium-independent activation of salicylic acid-induced protein kinase and a 40-kilodalton protein kinase by hyperosmotic stress. 2000 , 122, 1355-63	130
1572	New role for Shc in activation of the phosphatidylinositol 3-kinase/Akt pathway. 2000 , 20, 7109-20	228
1571	Role of MAP kinases p42erk-2/p44erk-1 in cementum-derived attachment-protein-mediated cell attachment. 2000 , 79, 1789-93	7
1570	Histone deacetylase 4 associates with extracellular signal-regulated kinases 1 and 2, and its cellular localization is regulated by oncogenic Ras. 2000 , 97, 14329-33	109
1569	The differential time-course of extracellular-regulated kinase activity correlates with the macrophage response toward proliferation or activation. 2000 , 275, 7403-9	103
1568	Signaling from G protein-coupled receptors to ERK5/Big MAPK 1 involves Galpha q and Galpha 12/13 families of heterotrimeric G proteins. Evidence for the existence of a novel Ras AND Rho-independent pathway. 2000 , 275, 21730-6	74
1567	Transforming growth factor-beta 1 suppresses serum deprivation-induced death of A549 cells through differential effects on c-Jun and JNK activities. 2000 , 275, 18234-42	48
1566	Neurotensin-mediated activation of MAPK pathways and AP-1 binding in the human pancreatic cancer cell line, MIA PaCa-2. 2000 , 269, 704-8	60
1565	Characterization of hPRP4 kinase activation: potential role in signaling. 2000 , 271, 456-63	14

1564	H(2)O(2)-induced tyrosine phosphorylation of protein kinase cdelta by a mechanism independent of inhibition of protein-tyrosine phosphatase in CHO and COS-7 cells. 2000 , 273, 960-6	34
1563	Activation of protein kinase C inhibits the expression of connective tissue growth factor. 2000 , 275, 312-21	12
1562	Thiol antioxidant, N-acetylcysteine, activates extracellular signal-regulated kinase signaling pathway in articular chondrocytes. 2000 , 275, 789-94	44
1561	Differential effects of N-acetyl-l-cysteine on IL-2- vs IL-12-driven proliferation of a T cell clone: implications for distinct signalling pathways. 2000 , 12, 1419-22	5
1560	The ERK-1/2 signaling pathway is involved in the stimulation of branching morphogenesis of fetal mouse submandibular glands by EGF. 2000 , 220, 183-96	96
1559	Downregulation of JNK/SAPK activity is associated with the cross-resistance to P-glycoprotein-unrelated drugs in multidrug-resistant FM3A/M cells overexpressing P-glycoprotein. 2000 , 256, 300-7	28
1558	Cdk7- and Cdc25A-independent dephosphorylation of Cdk2 during phorbol ester-mediated cell cycle arrest in U937 cells. 2000 , 257, 145-51	6
1557	Characterization of insulin-like growth factor-1 receptors in rabbit corneal epithelial cells. 2000 , 70, 199-204	23
1556	Requirement of activation of the extracellular signal-regulated kinase cascade in myocardial cell hypertrophy. 2000 , 32, 947-60	100
1555	Hypoosmotic stress activates p38, ERK 1 and 2, and SAPK/JNK in rat hepatocytes. 2000 , 90, 58-66	38
1554	Time-dependent impairment of inhibitory avoidance retention in rats by posttraining infusion of a mitogen-activated protein kinase kinase inhibitor into cortical and limbic structures. 2000 , 73, 11-20	84
1553	Increased expression and activation of stress-activated protein kinases/c-Jun NH(2)-terminal protein kinases in atherosclerotic lesions coincide with p53. 2000 , 156, 1875-86	84
1552	Calcium-induced ERK activation in human T lymphocytes occurs via p56(Lck) and CaM-kinase. 2000 , 37, 675-83	53
1551	High glucose attenuates insulin-induced mitogen-activated protein kinase phosphatase-1 (MKP-1) expression in vascular smooth muscle cells. 2000 , 1497, 244-52	12
1550	Reduced growth rate accompanied by aberrant epidermal growth factor signaling in drug resistant human breast cancer cells. 2000 , 1497, 215-26	19
1549	The p44/42 mitogen-activated protein kinase cascade is involved in the induction and maintenance of astrocyte stellation mediated by protein kinase C. 2000 , 36, 251-7	45
1548	Differential activation of MAPK/ERK and p38/SAPK in neurones and glia following focal cerebral ischaemia in the rat. 2000 , 77, 65-75	237
1547	Odor regulates the expression of the mitogen-activated protein kinase phosphatase gene hVH-5 in bilateral entorhinal cortex-lesioned rats. 2000 , 75, 113-20	21

1546	factor in cultured rat hippocampal neurons. 2000 , 282, 89-92	15
1545	Neuroprotection by MAPK/ERK kinase inhibition with U0126 against oxidative stress in a mouse neuronal cell line and rat primary cultured cortical neurons. 2000 , 288, 163-6	201
1544	Amyloid beta neurotoxicity not mediated by the mitogen-activated protein kinase cascade in cultured rat hippocampal and cortical neurons. 2000 , 292, 1-4	42
1543	Comparison of the stress response to cryopreservation in monolayer and three-dimensional human fibroblast cultures: stress proteins, MAP kinases, and growth factor gene expression. 2000 , 6, 539-54	57
1542	Regulation of death receptor-mediated apoptosis pathways. 2000 , 32, 1123-36	209
1541	Activation of MAPK cascades by G-protein-coupled receptors: the case of gonadotropin-releasing hormone receptor. 2000 , 11, 91-9	270
1540	RAC1/P38 MAPK signaling pathway controls beta1 integrin-induced interleukin-8 production in human natural killer cells. 2000 , 12, 7-16	85
1539	mu and delta-opioid receptor agonists induce mitogen-activated protein kinase (MAPK) activation in the absence of receptor internalization. 2000 , 39, 1707-19	58
1538	Signaling2000 and beyond. 2000 , 100, 113-27	2225
1537	Detection of partially phosphorylated forms of ERK by monoclonal antibodies reveals spatial regulation of ERK activity by phosphatases. 2000 , 468, 37-42	41
1536	Activation of signal transduction pathways involving trkA, PLCgamma-1, PKC isoforms and ERK-1/2 by tetanus toxin. 2000 , 481, 177-82	30
1535	beta-agonists regulate Na,K-ATPase via novel MAPK/ERK and rapamycin-sensitive pathways. 2000 , 486, 310-4	44
1534	Protein kinase Calpha isoform regulates the activation of the MAP kinase ERK1/2 in human glioma cells: involvement in cell survival and gene expression. 2000 , 4, 106-10	10
1533	Multiple endocrine neoplasias. 2000 , 62, 377-411	67
1532	The epsilon subtype of protein kinase C is required for cardiomyocyte connexin-43 phosphorylation. 2000 , 86, 293-301	160
1531	The expression, regulation and signal transduction pathways of the mammalian gonadotropin-releasing hormone receptor. 2000 , 78, 1029-1052	65
1530	Osmotic Stress Induces Rapid Activation of a Salicylic AcidInduced Protein Kinase and a Homolog of Protein Kinase ASK1 in Tobacco Cells. 2000 , 12, 165-178	240
1529	Akt-dependent antiapoptotic action of insulin is sensitive to farnesyltransferase inhibitor. 2000 , 39, 12513-21	20

1528	Depletion of Raf-1 protooncogene by geldanamycin causes apoptosis in human luteinized granulosa cells. 2000 , 74, 359-65	14
1527	Trophic actions of extracellular ATP: gene expression profiling by DNA array analysis. 2000, 81, 200-4	21
1526	Overexpression of G1/S cyclins and PCNA and their relationship to tyrosine phosphorylation and dephosphorylation during tumor promotion by metanil yellow and malachite green. 2000 , 116, 119-30	23
1525	Gender differences in acute CNS trauma and stroke: neuroprotective effects of estrogen and progesterone. 2000 , 17, 367-88	526
1524	Metabolism in the Contracting Skeletal Muscle. 2000 , 328-345	
1523	Differential induction of tobacco MAP kinases by the defense signals nitric oxide, salicylic acid, ethylene, and jasmonic acid. 2000 , 13, 347-51	168
1522	DUAL EFFECTS OF OUABAIN ON THE REGULATION OF PROLIFERATION AND APOPTOSIS IN HUMAN PROSTATIC SMOOTH MUSCLE CELLS. 2001 , 166, 347-353	77
1521	Beta-adrenergic receptors (betaAR) regulate cardiomyocyte proliferation during early postnatal life. <i>FASEB Journal</i> , 2001 , 15, 1921-6	29
1520	Hypochlorous acid stimulation of the mitogen-activated protein kinase pathway enhances cell survival. 2001 , 394, 13-20	79
1519	Glycated serum albumin-induced vascular smooth muscle cell proliferation through activation of the mitogen-activated protein kinase/extracellular signal-regulated kinase pathway by protein kinase C. 2001 , 281, 891-6	46
1518	Endogenous production of nitric oxide by vascular endothelial growth factor down-regulates proliferation of choriocarcinoma cells. 2001 , 282, 1061-6	19
1517	ERK mediates effects of glycated albumin in mesangial cells. 2001 , 283, 641-3	23
1516	Alterations of MAPK activities associated with intestinal cell differentiation. 2001, 284, 282-8	77
1515	Differential regulation of IL-1beta and TNF-alpha RNA expression by MEK1 inhibitor after focal cerebral ischemia in mice. 2001 , 286, 869-74	30
1514	Rapid activation of ERK1/2 mitogen-activated protein kinase by corticosterone in PC12 cells. 2001 , 287, 1017-24	46
1513	Insulin, insulin-like growth factor-I, and platelet-derived growth factor activate extracellular signal-regulated kinase by distinct pathways in muscle cells. 2001 , 288, 205-11	27
1512	Evidence for a novel thrombopoietin signalling event: activation of protein kinase A in human megakaryoblastic CMK cells. 2001 , 15, 75-9	5
1511	Neuronal plasticity and signal transduction in nociceptive neurons: implications for the initiation and maintenance of pathological pain. 2001 , 8, 1-10	589

1510	Role of ERK activation in growth and erythroid differentiation of K562 cells. 2001 , 264, 193-200	49
1509	Y-27632, an inhibitor of Rho-associated kinases, prevents tyrosine phosphorylation of focal adhesion kinase and paxillin induced by bombesin: dissociation from tyrosine phosphorylation of p130(CAS). 2001 , 266, 292-302	63
1508	Involvement of the MAP kinase pathways in induction of GADD45 following UV radiation. 2001 , 269, 64-72	57
1507	Lack of Elk-1 phosphorylation and dysregulation of the extracellular regulated kinase signaling pathway in senescent human fibroblast. 2001 , 269, 287-300	53
1506	Phosphatidylinositol 3-kinase and Ras/mitogen-activated protein kinase signaling pathways are required for the regulation of 5-aminolevulinate synthase gene expression by insulin. 2001 , 271, 201-13	24
1505	Activation of extracellular signal-regulated kinase in trabecular meshwork cells. 2001 , 73, 25-35	23
1504	Flow-induced DNA synthesis requires signaling to a translational control pathway. 2001 , 97, 20-6	22
1503	Phosphorylation of extracellular signal-regulated kinase after transient cerebral ischemia in hyperglycemic rats. 2001 , 8, 127-35	28
1502	Structure and control of a cell-cell adhesion complex associated with spermiation in rat seminiferous epithelium. 2001 , 22, 1030-52	93
1501	Mechanisms of cell volume regulation and possible nature of the cell volume sensor. 2001, 8, 77-88	99
1500	Sustained phosphorylation of mitogen-activated protein kinase is required for basic fibroblast growth factor-mediated axonal branch formation in cultured rat hippocampal neurons. 2001 , 38, 309-15	22
1499	The stimulation of MAP kinase by 1,25(OH)(2)-vitamin D(3) in skeletal muscle cells is mediated by protein kinase C and calcium. 2001 , 173, 41-52	52
1498	Tumor cell differentiation by butyrate and environmental stress. 2001 , 171, 173-82	20
1497	A systematic approach to the complete study of a signaling molecule: ribosomal p90rsk as an example. 2001 , 48, 219-37	2
1496	Parathyroid hormone activation of map kinase in rat duodenal cells is mediated by 3',5'-cyclic AMP and Ca(2+). 2001 , 1540, 201-12	26
1495	Differential effects of ischemia and reperfusion on c-Jun N-terminal kinase isoform protein and activity. 2001 , 94, 178-92	19
1494	Altered insulin receptor processing and function in scrapie-infected neuroblastoma cell lines. 2001 , 97, 161-70	27
1493	A role for the PI-3 kinase signaling pathway in fear conditioning and synaptic plasticity in the amygdala. 2001 , 31, 841-51	303

1492	Regulation of gonadotropin subunit genes in tilapia. 2001 , 129, 489-502	75
1491	GnRH receptor signaling in tilapia pituitary cells: role of mitogen-activated protein kinase (MAPK). 2001 , 129, 517-24	19
1490	Light activates a 46-kDa MAP kinase-like protein kinase in soybean cell culture. 2001 , 494, 24-9	11
1489	Effects of marine sponge extracts on mitogen-activated protein kinase (MAPK/ERK(1,2)) activity in SW-13 human adrenal carcinoma cells. 2001 , 39, 1835-9	12
1488	Active erk regulates microtubule stability in H-ras-transformed cells. 2001 , 3, 385-94	33
1487	Growth factors in pancreatic health and disease. 2001 , 1, 343-55	11
1486	Redox regulation of cardiomyocyte survival and death. 2001 , 3, 23-37	53
1485	Analysis of pharmacologic inhibitors of Jun N-terminal kinases. 2001 , 332, 432-52	5
1484	Zn(2+) induces stimulation of the c-Jun N-terminal kinase signaling pathway through phosphoinositide 3-Kinase. 2001 , 59, 981-6	50
1483	EGF receptor function is required in late G(1) for cell cycle progression induced by bombesin and bradykinin. 2001 , 281, C886-98	45
1482	Complement C5b-9 induces cyclooxygenase-2 gene transcription in glomerular epithelial cells. 2001 , 281, F841-F850	18
1481	Stimulation of pro-alpha(1)(I) collagen by TGF-beta(1) in mesangial cells: role of the p38 MAPK pathway. 2001 , 280, F495-504	109
1480	Integrin and FAK-mediated MAPK activation is required for cyclic strain mitogenic effects in Caco-2 cells. 2001 , 280, G75-87	81
1479	Selective potentiation of paclitaxel (taxol)-induced cell death by mitogen-activated protein kinase kinase inhibition in human cancer cell lines. 2001 , 60, 290-301	99
1478	Mitogen-activated protein kinase regulates early phosphorylation and delayed expression of Ca2+/calmodulin-dependent protein kinase II in long-term potentiation. 2001 , 21, 7053-62	95
1477	Ionomycin causes activation of p38 and p42/44 mitogen-activated protein kinases in human neutrophils. 2001 , 281, C350-60	52
1476	A role for MAP kinase in regulating ectodomain shedding of APLP2 in corneal epithelial cells. 2001 , 281, C603-14	24
1475	Evidence against high glucose as a mediator of ERK1/2 or p38 MAPK phosphorylation in rat skeletal muscle. 2001 , 281, E1255-9	6

1474	Limitation of heart growth in neonatal piglets by simvastatin and atorvastatin: comparison with pravastatin. 2001 , 280, H2746-51	7
1473	Arginine vasopressin stimulates mesangial cell proliferation by activating the epidermal growth factor receptor. 2001 , 280, F972-9	45
1472	Mitogen-activated protein kinase cascade in the basolateral nucleus of amygdala is involved in extinction of fear-potentiated startle. 2001 , 21, RC162	169
1471	Expression and immunolocalization of the 14-3-3 protein of Schistosoma mansoni. 2001 , 123, 573-82	28
1470	Altered growth response to prostaglandin E2 and its receptor signaling in mesangial cells from stroke-prone spontaneously hypertensive rats. 2001 , 19, 1095-103	9
1469	Activation by 2-arachidonoylglycerol, an endogenous cannabinoid receptor ligand, of p42/44 mitogen-activated protein kinase in HL-60 cells. 2001 , 129, 665-9	48
1468	Platelet-derived growth factor BB-induced p38 mitogen-activated protein kinase activation causes cell growth, but not apoptosis, in vascular smooth muscle cells. 2001 , 48, 433-42	13
1467	A role for the perlecan protein core in the activation of the keratinocyte growth factor receptor. 2001 , 359, 153-63	22
1466	HC fragment (C-terminal portion of the heavy chain) of tetanus toxin activates protein kinase C isoforms and phosphoproteins involved in signal transduction. 2001 , 356, 97-103	28
1465	A role for the perlecan protein core in the activation of the keratinocyte growth factor receptor. 2001 , 359, 153-163	28
1464	Corneal epithelial wound healing. 2001, 226, 653-64	291
1463	Asymmetrical response of p38 kinase activation to volume changes in primary rat astrocytes. 2001 , 226, 927-33	20
1462	Increased expression of iNOS and c-fos via regulation of protein tyrosine phosphorylation and MEK1/ERK2 proteins in terminal bronchiole lesions in the lungs of rats exposed to cigarette smoke. 2001 , 75, 28-35	47
1461	Mitogen-activated protein kinases in the heart. 2001 , 363, 245-66	84
1460	Molecular response of the sponge Suberites domuncula to bacterial infection. 2001 , 139, 1037-1045	63
1459	In-situ hybridization studies of protein kinase C ⊞and II isoforms in human diabetic nephropathy. 2001 , 5, 250-256	6
1458	Rapid activation of Na+/H+-exchange in MDCK cells by aldosterone involves MAP-kinase ERK1/2. 2001 , 441, 781-6	78
1457	Expression of the mitogen-activated protein kinase kinase ZmMEK1 in the primary root of maize. 2001 , 213, 916-26	14

1456	Differential activation of MAPK during Mllerian duct growth and apoptosis: JNK and p38 stimulation by DES blocks tissue death. 2001 , 306, 27-34	6
1455	Cyclic tensile stretch inhibition of nitric oxide release from osteoblast-like cells is both G protein and actin-dependent. 2001 , 19, 126-31	16
1454	Signal transduction pathways and apoptosis in bacteria infected chondrocytes. 2001 , 19, 696-702	6
1453	Peroxisome proliferator-activated receptor agonists prevent 25-OH-cholesterol induced c-jun activation and cell death. 2001 , 1, 10	12
1452	Involvement of the ERK mitogen-activated protein kinase in cell resistance to complement-mediated lysis. 2001 , 123, 366-74	50
1451	Regulation of rheumatoid synoviocyte proliferation by endogenous p53 induction. 2001 , 126, 334-8	24
1450	Characterization of platelet-derived growth factor-induced p38 mitogen-activated protein kinase activation in vascular smooth muscle cells. 2001 , 31, 672-80	14
1449	Chronic cocaine-mediated changes in non-human primate nucleus accumbens gene expression. 2001 , 77, 542-9	104
1448	Extracellular ATP stimulates an inhibitory pathway towards growth factor-induced cRaf-1 and MEKK activation in astrocyte cultures. 2001 , 77, 1001-9	30
1447	Reduced activation and expression of ERK1/2 MAP kinase in the post-mortem brain of depressed suicide subjects. 2001 , 77, 916-28	263
1446	Zn2+-induced ERK activation mediated by reactive oxygen species causes cell death in differentiated PC12 cells. 2001 , 78, 600-10	101
1445	Agonists of the P2Y(AC)-receptor activate MAP kinase by a ras-independent pathway in rat C6 glioma. 2001 , 78, 1325-38	30
1444	p38 MAPK and MAPK kinase 3/6 mRNA and activities are increased in early diabetic glomeruli. 2001 , 60, 543-52	79
1443	Chronic exposure of human mesangial cells to high glucose environments activates the p38 MAPK pathway. 2001 , 60, 858-71	89
1442	Hexamethylene bisacetamide protects peritoneal mesothelial cells from glucose. 2001 , 60, 996-1008	7
1441	Molecular cloning of multiple splicing variants of JIP-1 preferentially expressed in brain. 1999 , 72, 1335-43	39
1440	Involvement of mitogen-activated protein kinase in agonist-induced phosphorylation of the mu-opioid receptor in HEK 293 cells. 2000 , 74, 414-22	79
1439	Phosphatidic acid activates a wound-activated MAPK in Glycine max. 2001 , 26, 479-86	114

1438	Role of the FGF and MEK signaling pathway in the ascidian embryo. 2001 , 43, 521-33	83
1437	MEK (MAPKK) inhibitors. Part 2: structure-activity relationships of 4-anilino-3-cyano-6,7-dialkoxyquinolines. 2001 , 11, 1407-10	27
1436	Antiproliferative effect of nitric oxide on rat glomerular mesangial cells via inhibition of mitogen-activated protein kinase. 2001 , 268, 6358-68	15
1435	A PBS2 homologue from Debaryomyces hansenii shows a differential effect on calcofluor and polymyxin B sensitivity in Saccharomyces cerevisiae. 2001 , 18, 1207-16	12
1434	Western blotting as a method for studying cell-biomaterial interactions: the role of protein collection. 2001 , 54, 385-9	2
1433	Skeletal muscle cell activation by low-energy laser irradiation: a role for the MAPK/ERK pathway. 2001 , 187, 73-80	128
1432	Initiation of cell locomotility is a morphogenetic checkpoint in thyroid epithelial cells regulated by ERK and PI3-kinase signals. 2001 , 49, 93-103	7
1431	Role of mitogen-activated protein kinase cascades in P2Y receptor-mediated trophic activation of astroglial cells. 2001 , 53, 158-165	8
1430	Impact of cell swelling on proliferative signal transduction in the liver. 2001 , 83, 56-69	32
1429	CCK(B)/gastrin receptor mediates synergistic stimulation of DNA synthesis and cyclin D1, D3, and E expression in Swiss 3T3 cells. 2001 , 189, 291-305	29
1428	P2Y(2) nucleotide receptor signaling in human monocytic cells: activation, desensitization and coupling to mitogen-activated protein kinases. 2001 , 187, 196-208	52
1427	Cytosolic phospholipase A(2) activity during the ongoing cell cycle. 2001 , 188, 321-8	13
1426	Growth factors and their receptors in pancreatic cancer. 2001 , 21, 27-44	68
1425	Inhibition of UVB-induced oxidative stress-mediated phosphorylation of mitogen-activated protein kinase signaling pathways in cultured human epidermal keratinocytes by green tea polyphenol (-)-epigallocatechin-3-gallate. 2001 , 176, 110-7	221
1424	Signal transduction targets in androgen-independent prostate cancer. 2001 , 20, 351-62	18
1423	Growth hormone signalling and apoptosis in neonatal rat cardiomyocytes. 2001 , 223, 35-46	37
1422	Tissue inhibitor of metalloproteinases 1 and 2 directly stimulate the bone-resorbing activity of isolated mature osteoclasts. 2001 , 16, 2205-14	41
1421	The ras signaling pathway in mammary tumorigenesis and metastasis. 2001 , 6, 101-13	67

1420	Role of apoptosis of renal tubular cells in acute renal failure: therapeutic implications. 2001 , 6, 83-102	62
1419	Involvement of p38 mitogen-activated protein kinase and apoptosis signal-regulating kinase-1 in nitric oxide-induced cell death in PC12 cells. 2001 , 26, 525-32	24
1418	Activation of multiple MAPK pathways (ERKs, JNKs, p38-MAPK) by diverse stimuli in the amphibian heart. 2001 , 221, 63-9	21
1417	The role of the MAP-kinase superfamily in beta-amyloid toxicity. 2001 , 16, 175-85	35
1416	Mitogen activated protein kinase plays a significant role in metaphase II arrest, spindle morphology, and maintenance of maturation promoting factor activity in bovine oocytes. 2001 , 59, 106-14	59
1415	Mitogen-activated protein kinases and cerebral ischemia. 2001 , 23, 1-19	177
1414	Mitogen-activated protein kinase/extracellular signal-regulated kinase induced gene regulation in brain: a molecular substrate for learning and memory?. 2001 , 23, 83-99	87
1413	Intracellular signaling pathways involved in acetaldehyde-induced collagen and fibronectin gene expression in human hepatic stellate cells. 2001 , 33, 1130-40	106
1412	Anti-alpha2 integrin antibody induces secretion and activation of 72-kDa progelatinase by human fibroblasts. 2001 , 51, 25-31	
1411	Effects of authentic and VLDL hydrolysis-derived fatty acids on vascular smooth muscle cell growth. 2001 , 132, 1725-34	9
1410	Rac1 regulates heat shock responses by reorganization of vimentin filaments: identification using MALDI-TOF MS. 2001 , 8, 1093-102	14
1409	Gab1 phosphorylation: a novel mechanism for negative regulation of HGF receptor signaling. 2001 , 20, 156-66	39
1408	Taxol-induced apoptosis depends on MAP kinase pathways (ERK and p38) and is independent of p53. 2001 , 20, 147-55	310
1407	PKC delta mediates ionizing radiation-induced activation of c-Jun NH(2)-terminal kinase through MKK7 in human thyroid cells. 2001 , 20, 989-96	56
1406	Non-regulated and stimulated mechanisms cooperate in the nuclear accumulation of MEK1. 2001 , 20, 7588-96	40
1405	The regulation and function of the Id proteins in lymphocyte development. 2001 , 20, 8308-16	69
1404	Marathon running increases ERK1/2 and p38 MAP kinase signalling to downstream targets in human skeletal muscle. 2001 , 536, 273-82	85
1403	Human cervical cancer cells use Ca2+ signalling, protein tyrosine phosphorylation and MAP kinase in regulatory volume decrease. 2001 , 537, 347-62	53

1402	Neuronal synthesized insulin roles on neural differentiation within fetal rat neuron cell cultures. 2001 , 127, 41-9	36
1401	Intracellular signaling pathways mediated by the gonadotropin-releasing hormone (GnRH) receptor. 2001 , 32, 499-509	141
1400	Potentiation of cyclic AMP and cyclic GMP accumulation by p38 mitogen-activated protein kinase (p38MAPK) inhibitors in rat pinealocytes. 2001 , 62, 1605-11	11
1399	Inhibition of the ERK pathway prevents HIVgp120-induced REM sleep increase. 2001 , 913, 78-81	13
1398	Growth inhibitory effect of green tea extract and (-)-epigallocatechin in Ehrlich ascites tumor cells involves a cellular thiol-dependent activation of mitogenic-activated protein kinases. 2001 , 134, 113-33	22
1397	Specific oligobodies against ERK-2 that recognize both the native and the denatured state of the protein. 2001 , 252, 191-7	54
1396	Growth inhibitory activity of indapamide on vascular smooth muscle cells. 2001 , 428, 19-27	11
1395	Cellular biology of somatostatin receptors. 2001 , 35, 1-23	211
1394	Glyoxal and methylglyoxal trigger distinct signals for map family kinases and caspase activation in human endothelial cells. 2001 , 31, 20-30	118
1393	Glyoxal and methylglyoxal induce lyoxal and methyglyoxal induce aggregation and inactivation of ERK in human endothelial cells. 2001 , 31, 1228-35	28
1392	Sustained Activation of Extracellular Signal-Regulated Kinase (ERK) Signaling in Human Prostate Cancer LNCaP Cells Depleted of Androgen. 2001 , 3, 105-117	2
1391	Regulation of surfactant secretion. 2001 , 129, 233-43	121
1390	Down-regulation of growth factor-stimulated MAP kinase signaling in cytotoxic drug-resistant human neuroblastoma cells. 2001 , 13, 499-505	31
1389	MEK, ERK, and p90RSK are present on mitotic tubulin in Swiss 3T3 cells: a role for the MAP kinase pathway in regulating mitotic exit. 2001 , 13, 653-64	71
1388	Effect of NK-104 on proliferation of cells. 2001 , 3, 67-73	1
1387	Platelet-derived growth factor stimulates phospholipase C-gamma 1, extracellular signal-regulated kinase, and arachidonic acid release in rat myometrial cells: contribution to cyclic 3',5'-adenosine monophosphate production and effect on cell proliferation. 2001 , 65, 496-506	21
1386	Anti- Integrin Antibody Induces Secretion and Activation of 72-kDa Progelatinase by Human Fibroblasts. 2001 , 51, 25-31	1
1385	Borna disease virus persistent infection activates mitogen-activated protein kinase and blocks neuronal differentiation of PC12 cells. 2001 , 276, 7258-65	40

1384	Role of dynamin, Src, and Ras in the protein kinase C-mediated activation of ERK by gonadotropin-releasing hormone. 2001 , 276, 4554-63	83
1383	Kinase suppressor of Ras signals through Thr269 of c-Raf-1. 2001 , 276, 9733-41	58
1382	Role of glutathione S-transferases in protection against lipid peroxidation. Overexpression of hGSTA2-2 in K562 cells protects against hydrogen peroxide-induced apoptosis and inhibits JNK and caspase 3 activation. 2001 , 276, 19220-30	235
1381	Phosphatidylinositol 3-kinase, not extracellular signal-regulated kinase, regulates activation of the antioxidant-responsive element in IMR-32 human neuroblastoma cells. 2001 , 276, 20011-6	185
1380	Mitogen- and stress-activated protein kinase 1 mediates activation of Akt by ultraviolet B irradiation. 2001 , 276, 25558-67	64
1379	The negative effects of bile acids and tumor necrosis factor-alpha on the transcription of cholesterol 7alpha-hydroxylase gene (CYP7A1) converge to hepatic nuclear factor-4: a novel mechanism of feedback regulation of bile acid synthesis mediated by nuclear receptors. 2001 , 276, 30708-16	145
1378	Involvement of the activation loop of ERK in the detachment from cytosolic anchoring. 2001, 276, 24490-7	66
1377	Opposing roles of Elk-1 and its brain-specific isoform, short Elk-1, in nerve growth factor-induced PC12 differentiation. 2001 , 276, 5189-96	65
1376	Respiratory syncytial virus infection results in activation of multiple protein kinase C isoforms leading to activation of mitogen-activated protein kinase. 2001 , 166, 2681-7	72
1375	Mechanisms of lectin (phytohemagglutinin)-induced growth in small intestinal epithelial cells. 2001 , 64, 169-78	19
1374	Role of mitogen-activated protein kinase-mediated cytosolic phospholipase A2 activation in arachidonic acid metabolism in human eosinophils. 2001 , 167, 461-8	48
1373	The ERK signaling cascade inhibits gonadotropin-stimulated steroidogenesis. 2001 , 276, 13957-64	168
1372	Hereditary diffuse gastric cancer. 2001 , 83, 55-65	27
1371	Stimulation of lipolysis and hormone-sensitive lipase via the extracellular signal-regulated kinase pathway. 2001 , 276, 45456-61	264
1370	Prosaposin treatment induces PC12 entry in the S phase of the cell cycle and prevents apoptosis: activation of ERKs and sphingosine kinase. <i>FASEB Journal</i> , 2001 , 15, 467-74	41
1369	A CalDAG-GEFI/Rap1/B-Raf cassette couples M(1) muscarinic acetylcholine receptors to the activation of ERK1/2. 2001 , 276, 25568-81	63
1368	Sustained activation of extracellular signal-regulated kinase stimulated by hepatocyte growth factor leads to integrin alpha 2 expression that is involved in cell scattering. 2001 , 276, 21146-52	48
1367	Role of p42/p44 mitogen-activated-protein kinase and p21waf1/cip1 in the regulation of vascular smooth muscle cell proliferation by nitric oxide. 2001 , 98, 12802-7	62

1366	Requirement of mitogen-activated protein kinases and I kappa B phosphorylation for induction of proinflammatory cytokines synthesis by macrophages indicates functional similarity of receptors triggered by glycosylphosphatidylinositol anchors from parasitic protozoa and bacterial	104
1365	lipopolysaccharide. 2001 , 166, 3423-31 High intensity ERK signal mediates hepatocyte growth factor-induced proliferation inhibition of the human hepatocellular carcinoma cell line HepG2. 2001 , 276, 40968-76	74
1364	Positive signaling through CD72 induces mitogen-activated protein kinase activation and synergizes with B cell receptor signals to induce X-linked immunodeficiency B cell proliferation. 2001 , 167, 1263-73	31
1363	The stress kinase mitogen-activated protein kinase kinase (MKK)7 is a negative regulator of antigen receptor and growth factor receptor-induced proliferation in hematopoietic cells. 2001 , 194, 757-68	52
1362	Stimulation of extracellular signal-regulated kinases and proliferation in rat osteoblastic cells by parathyroid hormone is protein kinase C-dependent. 2001 , 276, 7586-92	119
1361	Gbeta gamma mediate differentiation of vascular smooth muscle cells. 2001 , 276, 19540-7	26
1360	Interleukin-3 stimulates migration and proliferation of vascular smooth muscle cells: a potential role in atherogenesis. 2001 , 103, 549-54	54
1359	p38-mediated regulation of an Fas-associated death domain protein-independent pathway leading to caspase-8 activation during TGFbeta-induced apoptosis in human Burkitt lymphoma B cells BL41. 2001 , 12, 3139-51	76
1358	PPARgamma and atherosclerosis: effects on cell growth and movement. 2001 , 21, 1891-5	146
1357	Autoregulation of cell-specific MAP kinase control of the tryptophan hydroxylase promoter. 2001 , 276, 21262-71	28
1356	Altered regulation of ERK1b by MEK1 and PTP-SL and modified Elk1 phosphorylation by ERK1b are caused by abrogation of the regulatory C-terminal sequence of ERKs. 2001 , 276, 35280-9	40
1355	Transcriptional control at regulatory checkpoints by histone deacetylases: molecular connections between cancer and chromatin. 2001 , 10, 693-8	239
1354	Osteopontin gene regulation by oscillatory fluid flow via intracellular calcium mobilization and activation of mitogen-activated protein kinase in MC3T3-E1 osteoblasts. 2001 , 276, 13365-71	299
1353	Propofol inhibits FMLP-stimulated phosphorylation of p42 mitogen-activated protein kinase and chemotaxis in human neutrophils. 2001 , 86, 853-8	40
1352	Hematopoietic protein tyrosine phosphatase suppresses extracellular stimulus-regulated kinase activation. 2001 , 21, 6851-8	61
1351	Mitogen-activated protein [MAP] kinase pathways in plants: versatile signaling tools. 2001 , 201, 209-75	91
1350	Engagement of endogenous ganglioside GM1a induces tyrosine phosphorylation involved in neuron-like differentiation of PC12 cells. 2001 , 11, 335-43	13
1349	Activator protein-1 transcription factor mediates bombesin-stimulated cyclooxygenase-2 expression in intestinal epithelial cells. 2001 , 276, 22941-7	98

1348	ERKs regulate cyclic AMP-induced steroid synthesis through transcription of the steroidogenic acute regulatory (StAR) gene. 2001 , 276, 34888-95	124
1347	Intravenous administration of MEK inhibitor U0126 affords brain protection against forebrain ischemia and focal cerebral ischemia. 2001 , 98, 11569-74	319
1346	Effects of androgens and estrogens and catechol and methoxy-estrogen derivatives on mitogen-activated protein kinase (ERK(1,2)) activity in SW-13 human adrenal carcinoma cells. 2001 , 33, 127-30	14
1345	Biochemical mechanisms of action of Hypericum LI 160 in glial and neuronal cells: inhibition of neurotransmitter uptake and stimulation of extracellular signal regulated protein kinase. 2001 , 34 Suppl 1, S103-7	14
1344	Evidence for mitogen-associated protein kinase activation and transduction of mitogenic signals by platelet-derived growth factor in human meningioma cells. 2001 , 94, 293-300	66
1343	Mechanism of GnRH receptor signaling on gonadotropin release and gene expression in pituitary gonadotrophs. 2001 , 63, 63-90	39
1342	Mechanism of growth promoting activity of epiregulin in primary cultures of rat hepatocytes. 2002 , 20, 61-9	28
1341	Temporal and spatial profile of phosphorylated mitogen-activated protein kinase pathways after lateral fluid percussion injury in the cortex of the rat brain. 2002 , 19, 1587-96	35
1340	Lung Cancer. 2002,	
1339	Visna virus-induced activation of MAPK is required for virus replication and correlates with virus-induced neuropathology. 2002 , 76, 817-28	48
1338	Basic FGF mediates an immediate response of articular cartilage to mechanical injury. 2002 , 99, 8259-64	170
1337	Attenuation of protein kinase C and cAMP-dependent protein kinase signal transduction in the neurogranin knockout mouse. 2002 , 277, 19498-505	52
1336	Keratin 8 phosphorylation by p38 kinase regulates cellular keratin filament reorganization: modulation by a keratin 1-like disease causing mutation. 2002 , 277, 10775-82	105
1335	Tumor cell surface heparan sulfate as cryptic promoters or inhibitors of tumor growth and metastasis. 2002 , 99, 568-73	196
1334	Developments in mitogen-induced extracellular kinase 1 inhibitors and their use in the treatment of disease. 2002 , 12, 1795-1811	8
1333	Monocyte chemoattractant protein-1-induced activation of p42/44 MAPK and c-Jun in murine peritoneal macrophages: a potential pathway for macrophage activation. 2002 , 22, 517-26	39
1332	The activity of the extracellular signal-regulated kinase 2 is regulated by differential phosphorylation in the activation loop. 2002 , 277, 13889-99	48
1331	Activation of MEK/ERK signaling promotes adipogenesis by enhancing peroxisome proliferator-activated receptor gamma (PPARgamma) and C/EBPalpha gene expression during the differentiation of 3T3-L1 preadipocytes. 2002 , 277, 46226-32	391

(2002-2002)

1330	Critical involvement of p38 MAP kinase in pertussis toxin-induced cytoskeletal reorganization and lung permeability. <i>FASEB Journal</i> , 2002 , 16, 1064-76	0.9	62
1329	Osmotic shrinkage of human cervical cancer cells induces an extracellular Cldependent nonselective cation channel, which requires p38 MAPK. 2002 , 277, 45776-84		17
1328	Hyposmotic stress induces cell growth arrest via proteasome activation and cyclin/cyclin-dependent kinase degradation. 2002 , 277, 19295-303		21
1327	MEK and ERK inhibitors enhance the anti-proliferative effect of interferon-alpha2b. <i>FASEB Journal</i> , 2002 , 16, 1680-2	0.9	57
1326	Protection against anoikis and down-regulation of cadherin expression by a regulatable beta-catenin protein. 2002 , 277, 18677-86		29
1325	CD40-activated macrophages become highly susceptible to X4 strains of human immunodeficiency virus type 1. 2002 , 18, 103-13		12
1324	Cancer Cell Signaling. 2002,		0
1323	Signaling pathway from the human adenosine A(3) receptor expressed in Chinese hamster ovary cells to the extracellular signal-regulated kinase 1/2. 2002 , 62, 1137-46		271
1322	Steroids mediate the expression of cytoplasmic and membrane-linked components in human myometrial cells. 2002 , 8, 597-605		6
1321	Epidermal growth factor enhances expression of connexin 43 protein in cultured porcine preantral follicles. 2002 , 67, 154-60		23
1320	Cis-4-methylsphingosine phosphate induces apoptosis in neuroblastoma cells by opposite effects on p38 and ERK mitogen-activated protein kinases. 2002 , 383, 1885-94		8
1319	Two novel mitogen-activated protein signaling components, OsMEK1 and OsMAP1, are involved in a moderate low-temperature signaling pathway in rice. 2002 , 129, 1880-91		140
1318	High glucose-induced activation of protein kinase signaling pathways in vascular smooth muscle cells: A potential role in the pathogenesis of vascular dysfunction in diabetes (Review). 2002 , 9, 85		
1317	Oxalate selectively activates p38 mitogen-activated protein kinase and c-Jun N-terminal kinase signal transduction pathways in renal epithelial cells. 2002 , 277, 13321-30		47
1316	The specificity of extracellular signal-regulated kinase 2 dephosphorylation by protein phosphatases. 2002 , 277, 31818-25		168
1315	Mitogen-activated protein kinase cascade, endothelial function and vasomotor tone in the spontaneously hypertensive rat. 2002 , 20, 1053-4		2
1314	Regulation of translation during in vitro maturation of bovine oocytes: the role of MAP kinase, eIF4E (cap binding protein) phosphorylation, and eIF4E-BP1. 2002 , 66, 1274-82		53
1313	The Raf/MEK/ERK signal transduction cascade as a target for chemotherapeutic intervention in leukemia. 2002 , 16, 486-507		211

1312	Effect of epidermal growth factor (EGF) on steroid and cyclic nucleotide secretion, proliferation and ERK-related MAP-kinase in cultured rabbit granulosa cells. 2002 , 110, 124-9	15
1311	Targeting protein kinase C: new therapeutic opportunities against high-grade malignant gliomas?. 2002 , 7, 17-33	137
1310	Silymarin inhibits growth and causes regression of established skin tumors in SENCAR mice via modulation of mitogen-activated protein kinases and induction of apoptosis. 2002 , 23, 499-510	117
1309	Vasopressin-mediated mitogenic signaling in intestinal epithelial cells. 2002 , 282, C434-50	60
1308	Activation of p38 mitogen-activated protein kinase attenuates Leishmania donovani infection in macrophages. 2002 , 70, 5026-35	68
1307	Regulation of human beta-defensin-2 in gingival epithelial cells: the involvement of mitogen-activated protein kinase pathways, but not the NF-kappaB transcription factor family. 2002 , 168, 316-24	157
1306	Activation of monocyte cyclooxygenase-2 gene expression by human herpesvirus 6. Role for cyclic AMP-responsive element-binding protein and activator protein-1. 2002 , 277, 30665-74	55
1305	Regulatory DNA required for vnd/NK-2 homeobox gene expression pattern in neuroblasts. 2002 , 99, 113-7	19
1304	Prostate Cancer: New Horizons in Research and Treatment. 2002,	
1303	Mitogen-activated protein kinase activity in cumulus cells is essential for gonadotropin-induced	186
	oocyte meiotic resumption and cumulus expansion in the mouse. 2002 , 143, 2221-32	
1302	Signaling networks that link cell proliferation and cell fate. 2002 , 277, 11617-20	249
		249
	Signaling networks that link cell proliferation and cell fate. 2002 , 277, 11617-20	
1301	Signaling networks that link cell proliferation and cell fate. 2002 , 277, 11617-20 Stretch and growth: the molecular and physiologic influences of tissue expansion. 2002 , 109, 2450-62 Specification of developmental fates in ascidian embryos: molecular approach to maternal	143
1301	Signaling networks that link cell proliferation and cell fate. 2002 , 277, 11617-20 Stretch and growth: the molecular and physiologic influences of tissue expansion. 2002 , 109, 2450-62 Specification of developmental fates in ascidian embryos: molecular approach to maternal determinants and signaling molecules. 2002 , 217, 227-76 Presence of mitogen-activated protein kinase in retinal Miler cells and its neuroprotective effect	143 59
1301 1300 1299	Signaling networks that link cell proliferation and cell fate. 2002, 277, 11617-20 Stretch and growth: the molecular and physiologic influences of tissue expansion. 2002, 109, 2450-62 Specification of developmental fates in ascidian embryos: molecular approach to maternal determinants and signaling molecules. 2002, 217, 227-76 Presence of mitogen-activated protein kinase in retinal Mller cells and its neuroprotective effect ischemia-reperfusion injury. 2002, 13, 2103-7	1435939
1301 1300 1299 1298	Signaling networks that link cell proliferation and cell fate. 2002, 277, 11617-20 Stretch and growth: the molecular and physiologic influences of tissue expansion. 2002, 109, 2450-62 Specification of developmental fates in ascidian embryos: molecular approach to maternal determinants and signaling molecules. 2002, 217, 227-76 Presence of mitogen-activated protein kinase in retinal Miler cells and its neuroprotective effect ischemia-reperfusion injury. 2002, 13, 2103-7 Pathogenesis of fibrosis: role of TGF-beta and CTGF. 2002, 14, 681-5 Mechanisms of inhibitory effects of cerivastatin on rat vascular smooth muscle cell growth. 2002, 40, 277-87 Phosphorylation and activation of mitogen- and stress-activated protein kinase-1 in adult rat	1435939243

1294	Regulation of mitogen-activated protein kinases by G-protein-coupled receptors. 2002, 345, 437-47	3
1293	Mitogen-activated protein kinase signaling in drug-resistant neuroblastoma cells. 2003 , 218, 71-83	10
1292	Assay of Raf-1 activity. 2002 , 345, 490-8	3
1291	Molecular analysis of mitogen-activated protein kinase signaling pathways induced by reactive oxygen intermediates. 2002 , 352, 53-61	8
1290	Chapter XI Elk-1: an important regulator of immediate early gene expression in the brain. 2002 , 19, 287-307	2
1289	Mitogen-activated protein kinases. 2002 , 30, S74-S79	126
1288	MAPKs mediate S phase arrest induced by vanadate through a p53-dependent pathway in mouse epidermal C141 cells. 2002 , 15, 950-6	19
1287	Role of heat shock proteins in atherosclerosis. 2002 , 22, 1547-59	259
1286	The alpha(1)beta(1) and alpha(2)beta(1) integrins provide critical support for vascular endothelial growth factor signaling, endothelial cell migration, and tumor angiogenesis. 2002 , 160, 195-204	280
1285	Studies of the mitogen-activated protein kinases and phosphatidylinositol-3 kinase in the lens. 1. The mitogenic and stress responses. 2002 , 74, 703-17	50
1284	Activation of ERK and Akt signaling in focal cerebral ischemia: modulation by TGF-alpha and involvement of NMDA receptor. 2002 , 11, 443-56	38
1283	High glucose induced VEGF expression via PKC and ERK in glomerular podocytes. 2002 , 290, 177-84	102
1282	Keeping the receptor tyrosine kinase signaling pathway in check: lessons from Drosophila. 2002 , 251, 1-17	55
1281	Activation of cytosolic phospholipase A2 by opsonized zymosan in human neutrophils requires both ERK and p38 MAP-kinase. 2000 , 479, 115-23	4
1280	Developmental control of blood cell migration by the Drosophila VEGF pathway. 2002, 108, 865-76	235
1279	Vascular smooth muscle cell proliferation requires both p38 and BMK1 MAP kinases. 2002 , 400, 199-207	40
1278	Picrosides I and II, selective enhancers of the mitogen-activated protein kinase-dependent signaling pathway in the action of neuritogenic substances on PC12D cells. 2002 , 71, 1821-35	35
1277	EGF receptor modifies cellular responses to hyaluronan in glioblastoma cell lines. 2002 , 9, 282-8	75

1276	Hepatocyte growth factor/scatter factor stimulates mitogenesis and migration of a head and neck squamous cell carcinoma cell line. 2002 , 127, 271-8	9
1275	Mercury inhibits nitric oxide production but activates proinflammatory cytokine expression in murine macrophage: differential modulation of NF-kappaB and p38 MAPK signaling pathways. 2002 , 7, 67-74	82
1274	Involvement of mitogen-activated protein kinases in the signal transduction pathway of bone marrow-derived macrophage activation in response to in vitro treatment with thymosin alpha 1. 2002 , 2, 47-58	18
1273	Diseases caused by asbestos: mechanisms of injury and disease development. 2002 , 2, 191-200	187
1272	Glucocorticoid-induced osteoporosis in the rat is prevented by the tyrosine phosphatase inhibitor, sodium orthovanadate. 2002 , 31, 220-9	41
1271	Mechanisms of gonadotropin desensitization. 2002 , 187, 69-74	54
127 0	GnRH signaling pathways regulate differentially the tilapia gonadotropin subunit genes. 2002, 189, 125-34	39
1269	Flufenamic acid: growth modulating effects on human aortic smooth muscle cells in vitro. 2002 , 13, 89-96	8
1268	Spawning induction in fish and GnRH regulation of gonadotropins: modes of action. 2002, 68, 661-666	1
1267	TGF-beta1 stimulates HO-1 via the p38 mitogen-activated protein kinase in A549 pulmonary epithelial cells. 2002 , 283, L1094-102	81
1266	Signal transduction targets in androgen-independent prostate cancer. 2002 , 215-226	
1265	GnRH and steroids in cancer. 2002 , 7, d1590-608	O
1264	The role of extracellular regulated kinases I/II in late-phase long-term potentiation. 2002 , 22, 5432-41	134
1263	CaM kinase II-dependent activation of tyrosine kinases and ERK1/2 in vascular smooth muscle. 2002 , 282, C754-61	86
1262	ERK mediates inhibition of $Na(+)/H(+)$ exchange and $HCO(3)(-)$ absorption by nerve growth factor in MTAL. 2002 , 282, F1056-63	29
1261	Mitochondrial K(ATP) channel openers activate the ERK kinase by an oxidant-dependent mechanism. 2002 , 283, C273-81	91
1260	Copper/zinc superoxide dismutase attenuates neuronal cell death by preventing extracellular signal-regulated kinase activation after transient focal cerebral ischemia in mice. 2002 , 22, 7923-30	104
1259	Role of Ras in metal-induced EGF receptor signaling and NF-kappaB activation in human airway epithelial cells. 2002 , 282, L1040-8	43

1258	Genetic and Molecular Coordinates of Neuroendocrine Lung Tumors, with Emphasis on Small-cell Lung Carcinomas. 2002 , 8, 419-436	6
1257	Potentiation of mitogenic activity of platelet-derived growth factor by physiological concentrations of insulin via the MAP kinase cascade in rat A10 vascular smooth muscle cells. 2002 , 3, 131-44	10
1256	Sphingosine-1-phosphate stimulates human Caco-2 intestinal epithelial proliferation via p38 activation and activates ERK by an independent mechanism. 2002 , 38, 246-53	21
1255	Excretory/secretory products from plerocercoids of Spirometra erinaceieuropaei suppress the TNF-alpha gene expression by reducing phosphorylation of ERK1/2 and p38 MAPK in macrophages. 2002 , 32, 1155-62	18
1254	New insights into the molecular actions of serotonergic antimigraine drugs. 2002 , 94, 77-92	56
1253	Uptake of (3)H-1-methyl-4-phenylpyridinium ((3)H-MPP(+)) by human intestinal Caco-2 cells is regulated by phosphorylation/dephosphorylation mechanisms. 2002 , 63, 1565-73	11
1252	Increase of the resistance of human cervical carcinoma cells to cisplatin by inhibition of the MEK to ERK signaling pathway partly via enhancement of anticancer drug-induced NF kappa B activation. 2002 , 63, 1423-30	113
1251	Endothelin-1-induced arachidonic acid release by cytosolic phospholipase A2 activation in rat vascular smooth muscle via extracellular signal-regulated kinases pathway. 2002 , 64, 425-31	34
1250	Activation of phosphatidylinositol 3-kinase is important for erythropoietin-induced erythropoiesis from CD34(+) hematopoietic progenitor cells. 2002 , 30, 990-1000	7 ²
1249	Differential involvement of Src family kinases in pervanadate-mediated responses in rat myometrial cells. 2002 , 14, 341-9	20
1248	Muscarinic activation of mitogen-activated protein kinase in rat thyroid epithelial cells. 2002, 14, 665-72	19
1247	Sphingosylphosphorylcholine-induced contraction of feline ileal smooth muscle cells is mediated by Galphai3 protein and MAPK. 2002 , 14, 989-97	9
1246	Enhancement of anchorage-independent growth of human pancreatic carcinoma MIA PaCa-2 cells by signaling from protein kinase C to mitogen-activated protein kinase. 2002 , 34, 180-6	17
1245	Changes of protein tyrosine phosphorylation in third instar larval integument of the Mediterranean fruit fly, Ceratitis capitata. 2002 , 50, 9-20	
1244	Immunomodulating action of low intensity millimeter waves on primed neutrophils. 2002, 23, 599-606	14
1243	Patterning the marginal zone of early ascidian embryos: localized maternal mRNA and inductive interactions. 2002 , 24, 613-24	49
1242	Antagonistic and agonistic effects of quinazoline tyrosine kinase inhibitors on mutant EGF receptor function. 2002 , 101, 111-7	15
1241	Selective induction of mitogen-activated protein kinases in human lens epithelial cells by ultraviolet radiation. 2002 , 16, 33-40	12

1240	Involvement of PI3-kinase and its association with c-Src in PTH-stimulated rat enterocytes. 2002 , 86, 773-83	32
1239	Recovery of cellular E-cadherin precedes replenishment of estrogen receptor and estrogen-dependent proliferation of breast cancer cells rescued from a death stimulus. 2002 , 192, 171-81	17
1238	Constitutive activation of p70S6k in cancer cells. 2002 , 25, 685-90	27
1237	Long-term administration of Sopungsungi-won (SP) prevents diabetic nephropathy in Zucker diabetic fatty rats. 2002 , 25, 917-22	5
1236	Meclofenamic acid for inhibition of human vascular smooth muscle cell proliferation and migration: an in vitro study. 2002 , 25, 57-63	3
1235	A 45-kDa protein kinase related to mitogen-activated protein kinase is activated in tobacco cells treated with a phorbol ester. 2002 , 214, 400-5	12
1234	Mechanobiology of cartilage: how do internal and external stresses affect mechanochemical transduction and elastic energy storage?. 2002 , 1, 219-38	21
1233	Expression of Oryza sativa MAP kinase gene is developmentally regulated and stress-responsive. 2002 , 114, 572-580	55
1232	Activation of the p38 MAP kinase pathway is required for foam cell formation from macrophages exposed to oxidized LDL. 2002 , 110, 458-68	76
1231	Possible involvement of extracellular signal-regulated kinases 1/2 in mitogenic response of periodontal ligament cells to enamel matrix derivative. 2002 , 110, 439-44	32
1230	Role of the nude gene in epithelial terminal differentiation. 2002 , 118, 303-9	52
1229	Macrophage signaling by glycosylphosphatidylinositol-anchored mucin-like glycoproteins derived from Trypanosoma cruzi trypomastigotes. 2002 , 4, 1015-25	64
1228	Muscarinic activation of mitogen-activated protein kinase in PC12 cells. 2000 , 75, 487-93	47
1227	Insulin-like growth factor-1 effects on bovine retinal endothelial cell glucose transport: role of MAP kinase. 2002 , 81, 728-34	16
1226	Mitogenic activity of dermatofibrosarcoma protuberans is mediated via an extracellular signal related kinase dependent pathway. 2002 , 119, 954-60	11
1225	P2 receptor antagonist PPADS inhibits mesangial cell proliferation in experimental mesangial proliferative glomerulonephritis. 2002 , 62, 1659-71	27
1224	Activation of AtMEK1, an Arabidopsis mitogen-activated protein kinase kinase, in vitro and in vivo: analysis of active mutants expressed in E. coli and generation of the active form in stress response in seedlings. 2002 , 29, 637-47	113
1223	Cerivastatin inhibits fetal calf serunvinduced DNA synthesis in cultured rat mesangial cells. 2002 , 7, 83-86	

1222	Stress-activated protein kinase/c-jun N-terminal kinase phosphorylates tau protein. 1997, 68, 1736-44	167
1221	Ras-signaling pathways: positive and negative regulation of tau expression in PC12 cells. 1998 , 70, 428-31	25
1220	Nociceptin/orphanin FQ activates mitogen-activated protein kinase in Chinese hamster ovary cells expressing opioid receptor-like receptor. 1998 , 70, 1316-22	23
1219	3',5'-cyclic guanosine monophosphate activates mitogen-activated protein kinase in rat pinealocytes. 1999 , 73, 598-604	26
1218	Requirement of caspase and p38MAPK activation in zinc-induced apoptosis in human leukemia HL-60 cells. 2002 , 269, 6204-11	49
1217	Adaptations of skeletal muscle to prolonged, intense endurance training. 2002 , 29, 218-22	186
1216	Effect of training on activation of extracellular signal-regulated kinase 1/2 and p38 mitogen-activated protein kinase pathways in rat soleus muscle. 2002 , 29, 655-60	25
1215	Downregulation of ERK2 is essential for the inhibition of radiation-induced cell death in HSP25 overexpressed L929 cells. 2002 , 9, 448-56	21
1214	MAPK signal pathways in the regulation of cell proliferation in mammalian cells. 2002, 12, 9-18	1448
1213	TC21 mediates transformation and cell survival via activation of phosphatidylinositol 3-kinase/Akt and NF-kappaB signaling pathway. 2002 , 21, 1062-70	43
1212	Aplidin induces the mitochondrial apoptotic pathway via oxidative stress-mediated JNK and p38 activation and protein kinase C delta. 2002 , 21, 7533-44	118
1211	Differential activation of mitogen-activated protein kinase pathways after traumatic brain injury in the rat hippocampus. 2002 , 22, 327-34	70
121 0	Role of mitogen- and stress-activated kinases in ischemic injury. 2002 , 22, 631-47	331
1209	A mechanism in Epstein-Barr virus oncogenesis: inhibition of transforming growth factor-beta 1-mediated induction of MAPK/p21 by LMP1. 2002 , 302, 310-20	18
1208	Chlorpyrifos oxon potentiates diacylglycerol-induced extracellular signal-regulated kinase (ERK 44/42) activation, possibly by diacylglycerol lipase inhibition. 2002 , 178, 29-36	36
1207	Expression of atrial natriuretic peptide receptor-A antagonizes the mitogen-activated protein kinases (Erk2 and P38MAPK) in cultured human vascular smooth muscle cells. 2002 , 233, 165-73	37
1206	Subtype specific roles of mitogen activated protein kinases in L6E9 skeletal muscle cell differentiation. 2002 , 238, 27-39	30
1205	Acrolein activates mitogen-activated protein kinase signal transduction pathways in rat vascular smooth muscle cells. 2002 , 240, 83-98	43

1204	Repeated fasting stress causes activation of mitogen-activated protein kinases (ERK/JNK) in rat liver. 2002 , 36, 72-80	10
1203	Modulation of ion channel function by P2Y receptors. 2003 , 39, 75-88	6
1202	Activation of muscarinic receptor signaling by bile acids: physiological and medical implications. 2003 , 48, 1431-44	59
1201	Mechanism of cell death of rat cardiac fibroblasts induced by serum depletion. 2003 , 251, 119-126	12
1200	Microtubules, microtubule-interfering agents and apoptosis. 2003 , 8, 413-50	382
1199	[Role of phosphorylation of myosin and actin-binding proteins in endothelial permeability induced by thrombin]. 2003 , 29, 510-7	2
1198	Curcumin inhibits ultraviolet light induced human immunodeficiency virus gene expression. 2003 , 254, 289-97	22
1197	Role of GM3-enriched microdomains in signal transduction regulation in T lymphocytes. 2004 , 20, 63-70	37
1196	Discussion of the role of the extracellular signal-regulated kinase-phospholipase A2 pathway in production of reactive oxygen species in Alzheimer's disease. 2003 , 28, 319-26	31
1195	Identification of differentially expressed genes in skeletal muscle of non-diabetic insulin-resistant and insulin-sensitive Pima Indians by differential display PCR. 2003 , 46, 1567-75	44
1194	IRS-4 mediated mitogenic signalling by insulin and growth hormone in LB cells, a murine T-cell lymphoma devoid of IGF-I receptors. 2003 , 15, 385-94	6
1193	Liver regeneration. 2003 , 197, 634-59	222
1192	CI-1040 (PD184352), a targeted signal transduction inhibitor of MEK (MAPKK). 2003, 30, 105-16	213
1191	Oxidative stress and calcium signaling in the adverse effects of environmental particles (PM10). 2003 , 34, 1369-82	331
1190	Expression and activation of MAP kinases, ERK1/2, in the human villous trophoblasts. 2003, 24, 164-72	37
1189	Glycated albumin increases oxidative stress, activates NF-kappa B and extracellular signal-regulated kinase (ERK), and stimulates ERK-dependent transforming growth factor-beta 1 production in macrophage RAW cells. 2003 , 141, 242-9	97
1188	Proliferation and wound healing of vascular cells trigger the generation of extracellular reactive oxygen species and LDL oxidation. 2003 , 35, 1589-98	23
1187	The extracellular signal-regulated kinase cascade suppresses amyloid beta protein-induced promotion of glutamate clearance in cultured rat cortical astrocytes. 2003 , 979, 179-87	14

(2003-2003)

1186	Activated peripheral blood mononuclear cells induce p44/42 mitogen-activated protein kinase phosphorylation in trophoblast-like JAR cells. 2003 , 60, 113-28	6
1185	Nardosinone, the first enhancer of neurite outgrowth-promoting activity of staurosporine and dibutyryl cyclic AMP in PC12D cells. 2003 , 145, 177-83	25
1184	Fibroblast growth factor receptor-1 mediates the inhibition of endothelial cell proliferation and the promotion of skeletal myoblast differentiation by SPARC: a role for protein kinase A. 2003 , 90, 408-23	57
1183	Activation of P2Y2 receptor induces c-FOS protein through a pathway involving mitogen-activated protein kinases and phosphoinositide 3-kinases in HeLa cells. 2003 , 195, 234-40	41
1182	Activation of extracellular signal-regulated kinases ERK1 and ERK2 induces Bcl-xL up-regulation via inhibition of caspase activities in erythropoietin signaling. 2003 , 195, 290-7	63
1181	Expression of the MAPK kinases MKK-4 and MKK-7 in rheumatoid arthritis and their role as key regulators of JNK. 2003 , 48, 2450-60	56
1180	Grb2 SH2 domain-binding peptide analogs as potential anticancer agents. 2003 , 71, 132-40	13
1179	Detection of JNK and p38 activation by flow cytometry analysis. 2003 , 317, 147-55	9
1178	Effects of mineral trioxide aggregate (MTA) extracts on mitogen-activated protein kinase activity in human osteosarcoma cell line (U2OS). 2003 , 24, 3909-13	41
1177	Stimulation of melanogenesis by tetradecanoylphorbol 13-acetate (TPA) in mouse melanocytes and neural crest cells. 2003 , 16, 26-34	27
1176	Mechanobiology of force transduction in dermal tissue. 2003 , 9, 3-23	257
1175	Changes in mitogen-activated protein kinase activity occur in the maize pulvinus in response to gravistimulation and are important for the bending response. 2003 , 26, 991-1001	10
1174	Spatio-temporal pattern of MAP kinase activation in embryos of the ascidian Halocynthia roretzi. 2003 , 45, 27-37	29
1173	Over-expression of the mitogen-activated protein kinase (MAPK) kinase (MEK)-MAPK in hepatocellular carcinoma: its role in tumor progression and apoptosis. 2003 , 3, 19	208
1172	The roles of calcium/calmodulin-dependent and Ras/mitogen-activated protein kinases in the development of psychostimulant-induced behavioral sensitization. 2003 , 85, 14-22	77
1171	Molecular mechanism of psychosine-induced cell death in human oligodendrocyte cell line. 2003 , 86, 1428-40	86
1170	Delayed but sustained induction of mitogen-activated protein kinase activity is associated with beta-adrenergic receptor-mediated morphological differentiation of astrocytes. 2004 , 88, 12-22	24
1169	Functional overlap and cooperativity among alphav and beta1 integrin subfamilies during skin angiogenesis. 2003 , 120, 1100-9	29

1168	High glucose activates the p38 MAPK pathway in cultured human peritoneal mesothelial cells. 2003 , 63, 958-68	31
1167	The ERK/MAP kinase pathway couples light to immediate-early gene expression in the suprachiasmatic nucleus. 2003 , 17, 1617-27	96
1166	The transient depression of hippocampal CA1 LTP induced by chronic intermittent ethanol exposure is associated with an inhibition of the MAP kinase pathway. 2003 , 17, 1646-54	51
1165	Stromal cell-derived factor 1alpha (SDF-1alpha) induces gene-expression of early growth response-1 (Egr-1) and VEGF in human arterial endothelial cells and enhances VEGF induced cell proliferation. 2003 , 36, 75-86	61
1164	Arsenite and arsenate activate extracellular signal-regulated kinases 1/2 by an epidermal growth factor receptor-mediated pathway in normal human keratinocytes. 2003 , 149, 1116-27	30
1163	Importance of ERK activation in behavioral and biochemical effects induced by MDMA in mice. 2003 , 140, 831-8	100
1162	Protein phosphatase 2A-linked and -unlinked caspase-dependent pathways for downregulation of Akt kinase triggered by 4-hydroxynonenal. 2003 , 10, 772-81	83
1161	Adenovirus-mediated PTEN treatment combined with caffeine produces a synergistic therapeutic effect in colorectal cancer cells. 2003 , 10, 803-13	26
1160	Grape seed extract inhibits EGF-induced and constitutively active mitogenic signaling but activates JNK in human prostate carcinoma DU145 cells: possible role in antiproliferation and apoptosis. 2003 , 22, 1302-16	125
1159	Receptor protein tyrosine phosphatase alpha signaling is involved in androgen depletion-induced neuroendocrine differentiation of androgen-sensitive LNCaP human prostate cancer cells. 2003 , 22, 6704-16	58
1158	Dual-specificity phosphatase Pyst2-L is constitutively highly expressed in myeloid leukemia and other malignant cells. 2003 , 22, 7649-60	28
1157	Matrix metalloproteinase production by COOH-terminal heparin-binding fibronectin fragment in rheumatoid synovial cells. 2003 , 83, 153-62	27
1156	Disease resistance and abiotic stress tolerance in rice are inversely modulated by an abscisic acid-inducible mitogen-activated protein kinase. 2003 , 15, 745-59	624
1155	Antisense basic fibroblast growth factor alters the time course of mitogen-activated protein kinase in arterialized vein graft remodeling. 2003 , 37, 866-73	21
1154	Regulation of fish gonadotropins. 2003 , 225, 131-85	298
1153	Involvement of MEK/ERK pathway in cephaloridine-induced injury in rat renal cortical slices. 2003 , 143, 185-94	16
1152	Peptide receptors as molecular targets for cancer diagnosis and therapy. 2003 , 24, 389-427	907
1151	The role of H2O2 as a mediator of UVB-induced apoptosis in keratinocytes. 2003 , 37, 655-63	57

1150	Oxidative DNA damage and glioma cell death induced by tetrahydropapaveroline. 2003, 544, 129-42	30
1149	PTTH-stimulated ecdysone secretion is dependent upon tyrosine phosphorylation in the prothoracic glands of Manduca sexta. 2003 , 33, 1317-25	25
1148	Selective and persistent activation of extracellular signal-regulated protein kinase by nitric oxide in glial cells induces neuronal degeneration in glutathione-depleted midbrain cultures. 2003 , 24, 1012-26	39
1147	Preconditioning potentiates redox signaling and converts death signal into survival signal. 2003 , 420, 305-11	84
1146	Synaptic plasticity and cell cycle activation in neurons are alternative effector pathways: the 'Dr. Jekyll and Mr. Hyde concept' of Alzheimer's disease or the yin and yang of neuroplasticity. 2003 , 71, 83-248	158
1145	Vascular endothelial growth factor inhibits mitogen-induced vascular smooth muscle cell proliferation. 2003 , 114, 179-86	26
1144	Extracellular alkalosis activates ERK mitogen-activated protein kinase of vascular smooth muscle cells through NADPH-mediated formation of reactive oxygen species. 2003 , 554, 399-402	12
1143	Merlin suppresses the SRE-dependent transcription by inhibiting the activation of Ras-ERK pathway. 2003 , 302, 238-45	34
1142	LPS regulate ERK1/2-dependent signaling in cardiac fibroblasts via PKC-mediated MKP-1 induction. 2003 , 303, 74-80	27
1141	Spatial and temporal regulation of mitogen-activated protein kinase phosphorylation in the mouse suprachiasmatic nucleus. 2003 , 305, 494-501	27
1140	Oocyte-dependent activation of mitogen-activated protein kinase (ERK1/2) in cumulus cells is required for the maturation of the mouse oocyte-cumulus cell complex. 2003 , 263, 126-38	171
1139	Roles of mitogen-activated protein kinase and phosphoinositide 3'-kinase in ErbB2/ErbB3 coreceptor-mediated heregulin signaling. 2003 , 284, 291-302	43
1138	An integrated model of epidermal growth factor receptor trafficking and signal transduction. 2003 , 85, 730-43	143
1137	Analysis of signal transduction stimulated by gonadotropins in granulosa cells. 2003 , 202, 77-80	38
1136	PGE(2) stimulates vascular smooth muscle cell proliferation via the EP2 receptor. 2003 , 203, 77-90	28
1135	Diurnal variation in p42/44 mitogen-activated protein kinase in the rat pineal gland. 2003 , 208, 23-30	18
1134	Activation of extracellular signal-regulated kinases (ERK) during reperfusion of ischemic spinal cord. 2003 , 115, 173-86	16
1133	A role for c-Jun N-terminal kinase in the inhibition of long-term potentiation by interleukin-1beta and long-term depression in the rat dentate gyrus in vitro. 2003 , 118, 347-57	97

1132	The concerted signaling of ERK1/2 and JNKs is essential for PC12 cell neuritogenesis and converges at the level of target proteins. 2003 , 24, 238-49	69
1131	Removal of GABAergic inhibition facilitates polysynaptic A fiber-mediated excitatory transmission to the superficial spinal dorsal horn. 2003 , 24, 818-30	213
1130	Ischemia-reperfusion decreases protein tyrosine phosphorylation and p38 mitogen-activated protein kinase phosphorylation in rat lung transplants. 2003 , 22, 338-46	18
1129	Cell signaling and transcription factor activation by asbestos in lung injury and disease. 2003 , 35, 1198-209	70
1128	Protein kinases and their involvement in the cellular responses to genotoxic stress. 2003 , 543, 31-58	35
1127	Treatment of green tea polyphenols in hydrophilic cream prevents UVB-induced oxidation of lipids and proteins, depletion of antioxidant enzymes and phosphorylation of MAPK proteins in SKH-1 hairless mouse skin. 2003 , 24, 927-36	194
1126	Androgen-independent prostate cancer: potential role of androgen and ErbB receptor signal transduction crosstalk. 2003 , 5, 99-109	25
1125	MAPKs: new targets for neurodegeneration. 2003 , 7, 187-200	88
1124	Synthetic estrogen-mediated activation of ERK 2 intracellular signaling molecule. 2003 , 17, 423-8	8
1123	Significant neuroprotection against ischemic brain injury by inhibition of the MEK1 protein kinase in mice: exploration of potential mechanism associated with apoptosis. 2003 , 304, 172-8	103
1122	Differential contribution of three mitogen-activated protein kinases to PDGF-BB-induced mesangial cell proliferation and gene expression. 2003 , 14, 584-92	42
1121	Mek2 is dispensable for mouse growth and development. 2003 , 23, 4778-87	147
112 0	H-Ras modulates N-methyl-D-aspartate receptor function via inhibition of Src tyrosine kinase activity. 2003 , 278, 23823-9	48
1119	Suppression of macho-1-directed muscle fate by FGF and BMP is required for formation of posterior endoderm in ascidian embryos. 2003 , 130, 3205-16	28
1118	Mitogen-activated protein kinase in Pfiesteria piscicida and its growth rate-related expression. 2003 , 69, 343-9	18
1117	Constitutive induction of p-Erk1/2 accompanied by reduced activities of protein phosphatases 1 and 2A and MKP3 due to reactive oxygen species during cellular senescence. 2003 , 278, 37497-510	102
1116	Role of 12-lipoxygenase in the stimulation of p38 mitogen-activated protein kinase and collagen alpha5(IV) in experimental diabetic nephropathy and in glucose-stimulated podocytes. 2003 , 14, 3178-87	64
1115	Role for extracellular signal-responsive kinase-1 and -2 in retinal angiogenesis. 2003 , 44, 1722-31	65

1114	Testosterone stimulates intracellular calcium release and mitogen-activated protein kinases via a G protein-coupled receptor in skeletal muscle cells. 2003 , 144, 3586-97		186
1113	Cross-talk between cytosolic phospholipase A2 alpha (cPLA2 alpha) and secretory phospholipase A2 (sPLA2) in hydrogen peroxide-induced arachidonic acid release in murine mesangial cells: sPLA2 regulates cPLA2 alpha activity that is responsible for arachidonic acid release. 2003 , 278, 24153-63		121
1112	Maturation-promoting factor governs mitogen-activated protein kinase activation and interphase suppression during meiosis of rat oocytes. 2003 , 68, 1282-90		37
1111	Cross-talk between ERK MAP kinase and Smad signaling pathways enhances TGF-beta-dependent responses in human mesangial cells. <i>FASEB Journal</i> , 2003 , 17, 1576-8	0.9	292
1110	Selective recognition of peptide sequences by glutathione transferases: a possible mechanism for modulation of cellular stress-induced signaling pathways. 2003 , 384, 645-51		6
1109	Signal transduction networks in rheumatoid arthritis. 2003 , 62 Suppl 2, ii86-9		51
1108	Redox regulation of reactive oxygen species-induced p38 MAP kinase activation and barrier dysfunction in lung microvascular endothelial cells. 2003 , 5, 723-30		120
1107	The role of receptor tyrosine kinase inhibition in treating gastrointestinal malignancy. 2003 , 12, 577-92		1
1106	Protection of renal epithelial cells against oxidative injury by endoplasmic reticulum stress preconditioning is mediated by ERK1/2 activation. 2003 , 278, 29317-26		166
1105	Bombesin, lysophosphatidic acid, and epidermal growth factor rapidly stimulate focal adhesion kinase phosphorylation at Ser-910: requirement for ERK activation. 2003 , 278, 22631-43		88
1104	c-Src is activated by the epidermal growth factor receptor in a pathway that mediates JNK and ERK activation by gonadotropin-releasing hormone in COS7 cells. 2003 , 278, 32618-30		59
1103	Adenosine triphosphate activates mitogen-activated protein kinase in pre-neoplastic and neoplastic ovarian surface epithelial cells. 2003 , 68, 309-15		13
1102	ERK5 activation of MEF2-mediated gene expression plays a critical role in BDNF-promoted survival of developing but not mature cortical neurons. 2003 , 100, 8532-7		138
1101	Oncogenic Ha-Ras transformation modulates the transcription of the CTP:phosphocholine cytidylyltransferase alpha gene via p42/44MAPK and transcription factor Sp3. 2003 , 278, 14753-61		33
1100	IFN-gamma induces high mobility group box 1 protein release partly through a TNF-dependent mechanism. 2003 , 170, 3890-7		283
1099	Maspin regulates different signaling pathways for motility and adhesion in aggressive breast cancer cells. 2003 , 2, 398-403		67
1098	NAMI-A inhibits the PMA-induced ODC gene expression in ECV304 cells: Involvement of PKC/Raf/Mek/ERK signalling pathway. 2003 , 23, 477		3
1097	Tumor necrosis factor-alpha induces functionally active hyaluronan-adhesive CD44 by activating sialidase through p38 mitogen-activated protein kinase in lipopolysaccharide-stimulated human monocytic cells. 2003 , 278, 37275-87		66

1096	Aspirin inhibits p44/42 mitogen-activated protein kinase and is protective against hypoxia/reoxygenation neuronal damage. 2003 , 34, 752-7	37
1095	Role of COX-independent targets of NSAIDs and related compounds in cancer prevention and treatment. 2003 , 37, 261-85	60
1094	Glucocorticoids induce rapid up-regulation of mitogen-activated protein kinase phosphatase-1 and dephosphorylation of extracellular signal-regulated kinase and impair proliferation in human and mouse osteoblast cell lines. 2003 , 144, 412-22	129
1093	Regulation of 90-kilodalton ribosomal S6 kinase phosphorylation in the rat pineal gland. 2003 , 144, 3344-50	16
1092	Role of CaM kinase II and ERK activation in thrombin-induced endothelial cell barrier dysfunction. 2003 , 285, L43-54	69
1091	Circadian and photic regulation of ERK, JNK and p38 in the hamster SCN. 2003 , 14, 1417-9	53
1090	p38 mitogen-activated protein kinase protects glomerular epithelial cells from complement-mediated cell injury. 2003 , 285, F765-74	37
1089	Role of MAPK pathways in light chain-induced cytokine production in human proximal tubule cells. 2003 , 284, F1245-54	66
1088	Induction of fetal hemoglobin expression by the histone deacetylase inhibitor apicidin. 2003, 101, 2001-7	106
1087	[Functional glycoconjugates involved in cellular interaction]. 2003, 123, 315-22	1
1086	Amyloid beta peptide specifically promotes phosphorylation and nuclear translocation of the extracellular signal-regulated kinase in cultured rat cortical astrocytes. 2003 , 93, 272-8	10
1085	Gene expression profiles of I3C- and DIM-treated PC3 human prostate cancer cells determined by cDNA microarray analysis. 2003 , 133, 1011-9	8o
1084	Dietary diethylstilbestrol but not genistein adversely affects rat testicular development. 2003 , 133, 2287-93	23
1083	Fibroblast growth factor mediates hypoxia-induced endothelin a receptor expression in lung artery smooth muscle cells. 2003 , 95, 643-51; discussion 863	33
1082	Mechanosensing and mechanochemical transduction: how is mechanical energy sensed and converted into chemical energy in an extracellular matrix?. 2003 , 31, 255-331	96
1081	Alpha 1-adrenergic and cholinergic agonists activate MAPK by separate mechanisms to inhibit secretion in lacrimal gland. 2003 , 284, C168-78	29
1080	Cholinergic agonists transactivate EGFR and stimulate MAPK to induce goblet cell secretion. 2003 , 284, C988-98	71
1079	Regulation of TGF-alpha-induced activation of AP-1 in the aging gastric mucosa. 2003 , 285, G396-403	9

1078	Butyric acid sensitizes Vero cells to ricin-induced apoptosis via accelerated activation of multiple signal transduction pathways. 2003 , 28, 475-85		7
1077	Immunohistochemical assessment of the glial mitogen-activated protein kinase activation in glaucoma. 2003 , 44, 3025-33		166
1076	ANG II stimulates PKC-dependent ERK activation, DNA synthesis, and cell division in intestinal epithelial cells. 2003 , 285, G1-11		35
1075	Coordinate signaling by Src and p38 kinases in the induction of cortical cataracts. 2004 , 45, 2314-23		15
1074	Indole-3-carbinol and prostate cancer. 2004 , 134, 3493S-3498S		97
1073	Use of inhibitors in the study of MAPK signaling. 2004 , 250, 113-26		3
1072	Norepinephrine induction of mitogen-activated protein kinase phosphatase-1 expression in rat pinealocytes: distinct roles of alpha- and beta-adrenergic receptors. 2004 , 145, 5723-33		29
1071	Adrenergic regulation and diurnal rhythm of p38 mitogen-activated protein kinase phosphorylation in the rat pineal gland. 2004 , 145, 5194-201		19
1070	Inhibition of p38 mitogen-activated protein kinase enhances adrenergic-stimulated arylalkylamine N-acetyltransferase activity in rat pinealocytes. 2004 , 145, 1167-74		20
1069	The ERK cascade as a prototype of MAPK signaling pathways. 2004 , 250, 1-28		49
1068	Intravenous 2-deoxy-D-glucose injection rapidly elevates levels of the phosphorylated forms of p44/42 mitogen-activated protein kinases (extracellularly regulated kinases 1/2) in rat hypothalamic parvicellular paraventricular neurons. 2004 , 145, 351-9		37
1067	MEK5 and ERK5 are localized in the nuclei of resting as well as stimulated cells, while MEKK2 translocates from the cytosol to the nucleus upon stimulation. 2004 , 117, 1773-84		55
1066	Anisomycin downregulates gap-junctional intercellular communication via the p38 MAP-kinase pathway. 2004 , 117, 2087-96		31
1065	Silibinin protects against photocarcinogenesis via modulation of cell cycle regulators, mitogen-activated protein kinases, and Akt signaling. 2004 , 64, 6349-56		126
1064	Gonadotropin-releasing hormone induces apoptosis of prostate cancer cells: role of c-Jun NH2-terminal kinase, protein kinase B, and extracellular signal-regulated kinase pathways. 2004 , 64, 5736-44		62
1063	Persistent, noncytolytic infection of neurons by Borna disease virus interferes with ERK 1/2 signaling and abrogates BDNF-induced synaptogenesis. <i>FASEB Journal</i> , 2004 , 18, 863-5	0.9	61
1062	LeMPK3 is a mitogen-activated protein kinase with dual specificity induced during tomato defense and wounding responses. 2004 , 279, 14819-27		68
1061	Desialylation of glycoconjugates on the surface of monocytes activates the extracellular signal-related kinases ERK 1/2 and results in enhanced production of specific cytokines. 2004 , 75, 307-13		39

1060	Exogenous nitric oxide upregulates p21(waf1/cip1) in pulmonary microvascular smooth muscle cells. 2004 , 41, 211-9	24
1059	Morphological effects of estrogen on cholinergic neurons in vitro involves activation of extracellular signal-regulated kinases. 2004 , 24, 982-90	52
1058	In vivo regulation of extracellular signal-regulated protein kinase (ERK) and protein kinase B (Akt) phosphorylation by acute and chronic morphine. 2004 , 310, 774-82	88
1057	Trypanosoma cruzi infection activates extracellular signal-regulated kinase in cultured endothelial and smooth muscle cells. 2004 , 72, 5274-82	52
1056	Epigallocatechin-3-gallate inhibits epidermal growth factor receptor signaling pathway. Evidence for direct inhibition of ERK1/2 and AKT kinases. 2004 , 279, 12755-62	183
1055	D1 dopamine receptor mediates dopamine-induced cytotoxicity via the ERK signal cascade. 2004 , 279, 39317-30	80
1054	Immunolocalization of BMP-2/-4, FGF-4, and WNT10b in the developing mouse first lower molar. 2004 , 52, 103-12	58
1053	MAP Kinase Signaling Protocols. 2004 ,	
1052	Native LDL and oxidized LDL modulate cyclooxygenase-2 expression in HUVECs through a p38-MAPK, NF-kappaB, CRE dependent pathway and affect PGE2 synthesis. 2004 , 14, 353-9	11
1051	Extracellular signal-regulated kinase 1c (ERK1c), a novel 42-kilodalton ERK, demonstrates unique modes of regulation, localization, and function. 2004 , 24, 10000-15	55
1050	Mitogen-activated protein kinase phosphatase-3 is a tumor promoter target in initiated cells that express oncogenic Ras. 2004 , 279, 33085-92	41
1049	Chronic immune activation associated with chronic helminthic and human immunodeficiency virus infections: role of hyporesponsiveness and anergy. 2004 , 17, 1012-30, table of contents	104
1048	Response of turkey poults to soybean lectin levels typically encountered in commercial diets. 1. Effect on growth and nutrient digestibility. 2004 , 83, 1559-71	24
1047	Distinct roles for Src tyrosine kinase in beta2-adrenergic receptor signaling to MAPK and in receptor internalization. 2004 , 279, 21637-42	25
1046	Sphingosine 1-phosphate cross-activates the Smad signaling cascade and mimics transforming growth factor-beta-induced cell responses. 2004 , 279, 35255-62	152
1045	ERK signaling is required for eye-specific retino-geniculate segregation. 2004 , 131, 3559-70	12
1044	Cadmium activates a mitogen-activated protein kinase gene and MBP kinases in rice. 2004 , 45, 1306-12	84
1043	DARPP-32 expression arises after a phase of dysplasia in oesophageal squamous cell carcinoma. 2004 , 91, 119-23	22

1042	Involvement of mitogen-activated protein kinases and p21Waf1 in hydroxyurea-induced G1 arrest and senescence of McA-RH7777 rat hepatoma cell line. 2004 , 36, 493-8	6
1041	Proteomic analysis of cholesteatoma. 2004 , 124, 783-8	10
1040	Inducible antisense RNA targeting amino acid transporter ATB0/ASCT2 elicits apoptosis in human hepatoma cells. 2004 , 286, G467-78	52
1039	HDL3 induces cyclooxygenase-2 expression and prostacyclin release in human endothelial cells via a p38 MAPK/CRE-dependent pathway: effects on COX-2/PGI-synthase coupling. 2004 , 24, 871-7	85
1038	Evidence for ERK1/2 phosphorylation controlling contact inhibition of proliferation in Madin-Darby canine kidney epithelial cells. 2004 , 287, C432-9	22
1037	Fractalkine reduces N-methyl-d-aspartate-induced calcium flux and apoptosis in human neurons through extracellular signal-regulated kinase activation. 2004 , 20, 3222-32	45
1036	Transforming growth factor-betas in a rat model of neonatal posthaemorrhagic hydrocephalus. 2004 , 30, 585-600	41
1035	Role of extracellular signal-regulated protein kinase in neuronal cell death induced by glutathione depletion in neuron/glia mesencephalic cultures. 2004 , 91, 667-82	84
1034	High expression of PKC-MAPK pathway mRNAs correlates with glomerular lesions in human diabetic nephropathy. 2004 , 66, 1107-14	58
1033	K-Ras gene status and expression of Ras/mitogen-activated protein kinase (MAPK) signaling molecules in ameloblastomas. 2004 , 33, 360-7	33
1032	MKK7 couples stress signalling to G2/M cell-cycle progression and cellular senescence. 2004 , 6, 215-26	120
1031	Neuroprotective effects and intracellular signaling pathways of erythropoietin in a rat model of multiple sclerosis. 2004 , 11 Suppl 2, S181-92	135
1030	Mitogen-activated protein kinases in apoptosis regulation. 2004 , 23, 2838-49	1205
1029	Differential effects of P2Y1 and P2Y12 nucleotide receptors on ERK1/ERK2 and phosphatidylinositol 3-kinase signalling and cell proliferation in serum-deprived and nonstarved glioma C6 cells. 2004 , 141, 497-507	39
1028	P2X7 receptors stimulate AKT phosphorylation in astrocytes. 2004 , 141, 1106-17	103
1027	Heterologous desensitization of the sphingosine-1-phosphate receptors by purinoceptor activation in renal mesangial cells. 2004 , 143, 581-9	24
1026	Differential effect of bicycling exercise intensity on activity and phosphorylation of atypical protein kinase C and extracellular signal-regulated protein kinase in skeletal muscle. 2004 , 560, 909-18	31
1025	Mercury-induced apoptosis and necrosis in murine macrophages: role of calcium-induced reactive oxygen species and p38 mitogen-activated protein kinase signaling. 2004 , 196, 47-57	120

1024	Cell signaling pathways altered by natural chemopreventive agents. 2004 , 555, 53-64	126
1023	A cancer chemopreventive agent silibinin, targets mitogenic and survival signaling in prostate cancer. 2004 , 555, 21-32	51
1022	Age-related changes in the response of intestinal cells to parathyroid hormone. 2004 , 125, 877-88	3
1021	Upregulation of FasL by LPA on ovarian cancer cell surface leads to apoptosis of activated lymphocytes. 2004 , 95, 488-95	16
1020	Spatial, temporal, and cellular distribution of the activated extracellular signal regulated kinases 1 and 2 in the developing and mature rat cerebellum. 2004 , 150, 199-209	13
1019	Differentiation-inducing factor-1-induced growth arrest of K562 leukemia cells involves the reduction of ERK1/2 activity. 2004 , 485, 21-9	23
1018	Ebselen inhibits p38 mitogen-activated protein kinase-mediated endothelial cell death by hydrogen peroxide. 2004 , 485, 127-35	26
1017	Amidine analogue of chlorambucil is a stronger inhibitor of protein and DNA synthesis in breast cancer MCF-7 cells than is the parent drug. 2004 , 492, 95-101	12
1016	HSP25 overexpression attenuates oxidative stress-induced apoptosis: roles of ERK1/2 signaling and manganese superoxide dismutase. 2004 , 36, 429-44	41
1015	Enhancement of peripheral benzodiazepine receptor ligand-induced apoptosis and cell cycle arrest of esophageal cancer cells by simultaneous inhibition of MAPK/ERK kinase. 2004 , 67, 1701-10	24
1014	Tetrandrine-induced apoptosis is mediated by activation of caspases and PKC-delta in U937 cells. 2004 , 67, 1819-29	46
1013	Inhibition of MEK/ERK 1/2 pathway reduces pro-inflammatory cytokine interleukin-1 expression in focal cerebral ischemia. 2004 , 996, 55-66	121
1012	Neuroprotection by fructose-1,6-bisphosphate involves ROS alterations via p38 MAPK/ERK. 2004 , 1026, 295-301	37
1011	Various stressors rapidly activate the p38-MAPK signaling pathway in Mytilus galloprovincialis (Lam.). 2004 , 260, 119-27	43
1010	Transforming growth factor-beta effects on meningioma cell proliferation and signal transduction pathways. 2004 , 66, 9-16	36
1009	Role of mitogen-activated protein kinase in the regulation of transforming growth factor-beta-induced fibronectin accumulation in cultured renal interstitial fibroblasts. 2004 , 8, 188-95	36
1008	Ability of a specific ERK signal-pathway inhibitor to reverse P-glycoprotein-mediated vincristine resistance in colon cancer cell lines. 2004 , 1, 295-300	
1007	Signaling from nucleotide receptors to protein kinase cascades in astrocytes. 2004 , 29, 2037-42	32

1006	Expression and significance of ERK protein in human breast carcinoma. 2004 , 16, 269-273	2
1005	Presenilin-1 and intracellular calcium stores regulate neuronal glutamate uptake. 2004 , 88, 1361-72	21
1004	Vasopressin-induced vasoconstriction is dependent on MAPKerk1/2 phosphorylation. 2004, 18, 45-50	5
1003	Mitochondrial pathway is involved in hydrogen-peroxide-induced apoptotic cell death of oligodendrocytes. 2004 , 46, 446-55	60
1002	Cellular regulation of hepatic bile acid transport in health and cholestasis. 2004 , 39, 581-90	90
1001	Prognostic significance of phosphorylated P38 mitogen-activated protein kinase and HER-2 expression in lymph node-positive breast carcinoma. 2004 , 100, 499-506	97
1000	Paeoniflorin induces apoptosis of lymphocytes through a redox-linked mechanism. 2004 , 93, 162-72	67
999	Inhibition of phenylephrine-induced cardiac hypertrophy by docosahexaenoic acid. 2004 , 92, 1141-59	26
998	Epidermal growth factor inhibits 14C-alpha-methyl-D-glucopyranoside uptake in renal proximal tubule cells: involvement of PLC/PKC, p44/42 MAPK, and cPLA2. 2004 , 199, 206-16	7
997	MAP kinases differentially regulate the expression of macrophage hyperactivity after thermal injury. 2004 , 201, 35-44	24
996	Synthesis and structure-activity relationships of thioflavone derivatives as specific inhibitors of the ERK-MAP kinase signaling pathway. 2004 , 12, 2397-407	38
995	Energy restriction restores the impaired immune response in overweight (cafeteria) rats. 2004 , 15, 418-25	56
994	ERK signaling pathway is differentially involved in erythroid differentiation of K562 cells depending on time and the inducing agent. 2004 , 28, 403-10	26
993	Distinct roles of Ca2+, calmodulin, and protein kinase C in H2O2-induced activation of ERK1/2, p38 MAPK, and protein kinase B signaling in vascular smooth muscle cells. 2004 , 6, 353-66	46
992	Insulin-induced cell cycle progression is impaired in chinese hamster ovary cells overexpressing insulin receptor substrate-3. 2004 , 145, 5862-74	10
991	Different Regulation of ERK1/2 Activation by \$beta;-Adrenergic Receptor Subtypes in Adult Mouse Cardiomyocytes. 2004 ,	
990	Cell-type specific signal transduction and gene regulation via mitogen-activated proteinkinase pathway in catecholaminergic neurons by restraint stress. 2004 , 129, 831-831	
989	Different regulation of ERK1/2 activation by beta-adrenergic receptor subtypes in adult mouse cardiomyocytes. 2004 , 13, 179-83	10

988	Replication of varicella-zoster virus is influenced by the levels of JNK/SAPK and p38/MAPK activation. 2004 , 85, 3529-3540	59
987	Inhibition of p38 and ERK MAP kinases blocks endotoxin-induced nitric oxide production and differentially modulates cytokine expression. 2004 , 49, 433-9	98
986	Phosphorylation of paxillin by p38MAPK is involved in the neurite extension of PC-12 cells. 2004 , 164, 593-602	75
985	MAP kinases and cell migration. 2004 , 117, 4619-28	874
984	The interleukin (IL)-2 family cytokines: survival and proliferation signaling pathways in T lymphocytes. 2004 , 33, 109-42	111
983	ERK, PKC and PI3K/Akt pathways mediate extracellular ATP and adenosine-induced proliferation of U138-MG human glioma cell line. 2004 , 67, 450-9	37
982	Generation and Application of Ovarian Steroidogenic Cell Lines. 2004, 389-409	2
981	Activation of ERK1/2 MAP kinase pathway induces tight junction disruption in human corneal epithelial cells. 2004 , 78, 125-36	94
980	Cdc42-dependent nuclear translocation of non-receptor tyrosine kinase, ACK. 2004 , 314, 571-9	16
979	Heme controls the expression of cell cycle regulators and cell growth in HeLa cells. 2004 , 315, 546-54	34
978	Molecular mechanisms of echinocystic acid-induced apoptosis in HepG2 cells. 2004, 321, 539-46	36
977	Chemokine CCL20 enhances the growth of HuH7 cells via phosphorylation of p44/42 MAPK in vitro. 2004 , 322, 1052-8	33
976	p38 MAPK signaling pathway is involved in butyrate-induced vitamin D receptor expression. 2004 , 324, 1220-6	25
975	Differential signalling mechanisms predisposing primary human skeletal muscle cells to altered proliferation and differentiation: roles of IGF-I and TNFalpha. 2004 , 294, 223-35	57
974	Cell-type specific signal transduction and gene regulation via mitogen-activated protein kinase pathway in catecholaminergic neurons by restraint stress. 2004 , 129, 831-9	18
973	Cell signals transduced by complement. 2004 , 41, 583-97	126
972	Immunohistochemical detection of phosphorylated form of extracellular signal-regulated kinase 1/2 in rat vestibular nuclei following hemorrhagic hypotension. 2004 , 360, 49-52	7
971	Examination of stress-related genes in human temporal versus occipital cortex in the course of neurodegeneration: involvement of 14-3-3 zeta in this dynamic process. 2004 , 365, 1-5	20

970	MAPK activation in nociceptive neurons and pain hypersensitivity. 2004 , 74, 2643-53	270
969	Protective effects of SP600125 a new inhibitor of c-jun N-terminal kinase (JNK) and extracellular-regulated kinase (ERK1/2) in an experimental model of cerulein-induced pancreatitis. 2004 , 75, 2853-66	46
968	Effects of carbachol on rat Sertoli cell proliferation and muscarinic acetylcholine receptors regulation: an in vitro study. 2004 , 75, 1761-73	19
967	5-HT activates ERK MAP kinase in cultured-human peripheral blood mononuclear cells via 5-HT1A receptors. 2004 , 76, 429-43	17
966	Renal expression and activity of the germinal center kinase SK2. 2004 , 286, F16-25	17
965	Detection of MAP Kinase Signaling. 2004 , 67, 18.12.1	
964	Requirement of mitogen-activated protein kinase for collagenase production by the fibronectin fragment in human articular chondrocytes in culture. 2004 , 14, 54-60	17
963	Inhibition of mitogen-mediated proliferation of rat vascular smooth muscle cells by labedipinedilol-A through PKC and ERK 1/2 pathway. 2004 , 44, 539-51	24
962	Chlorogenic acid inhibits Bcr-Abl tyrosine kinase and triggers p38 mitogen-activated protein kinase-dependent apoptosis in chronic myelogenous leukemic cells. 2004 , 104, 2514-22	80
961	Regulators of vascular endothelial growth factor expression in cancer. 2004 , 119, 33-58	3
960	Selenium attenuates lipopolysaccharide-induced oxidative stress responses through modulation of p38 MAPK and NF-kappaB signaling pathways. 2004 , 229, 203-13	112
959	Prevention of TNF-alpha-induced apoptosis in polyamine-depleted IEC-6 cells is mediated through the activation of ERK1/2. 2004 , 286, G479-90	37
958	Apoptotic and necrotic mechanisms of stress-induced human lens epithelial cell death. 2004 , 229, 1072-80	51
957	4. MECHANISMS OF BILE FORMATION AND CHOLESTASIS. 2004 , 81-118	
956	Analysis of the Caenorhabditis elegans dlk-1 gene expression. 2005 , 9, 107-111	
955	Pepsin-digested bovine lactoferrin induces apoptotic cell death with JNK/SAPK activation in oral cancer cells. 2005 , 98, 41-8	48
954	Pomegranate Fruit Extract Modulates UV-Bihediated Phosphorylation of Mitogen-activated Protein Kinases and Activation of Nuclear Factor Kappa B in Normal Human Epidermal Keratinocytes. 2005, 81, 38	118
953	Zinc induces mitogen-activated protein kinase activation mediated by reactive oxygen species in rice roots. 2005 , 43, 963-8	45

952	Nitric oxide signalling and cellular adaptations to changes in oxygenation. 2005 , 208, 235-48	35
951	The ERK cascade: a prototype of MAPK signaling. 2005 , 31, 151-74	319
950	Signaling from P2 nucleotide receptors to protein kinase cascades induced by CNS injury: implications for reactive gliosis and neurodegeneration. 2005 , 31, 95-103	39
949	Unique expression and regulatory mechanisms of EG-VEGF/prokineticin-1 and its receptors in the corpus luteum. 2005 , 187, 529-37	22
948	Functional SDF1 alpha/CXCR4 signaling in the developing spinal cord. 2005 , 93, 452-62	40
947	Increased spinal cord phosphorylation of extracellular signal-regulated kinases mediates micturition overactivity in rats with chronic bladder inflammation. 2005 , 21, 773-81	53
946	Thyroid hormone-induced morphological differentiation and maturation of astrocytes involves activation of protein kinase A and ERK signalling pathway. 2005 , 22, 1609-17	30
945	14-3-3 proteinsan update. 2005 , 15, 228-36	237
944	Combined inhibition of extracellular signal-regulated kinases and HSP90 sensitizes human colon carcinoma cells to ionizing radiation. 2005 , 24, 3011-9	24
943	Regulation of extracellular signal-regulated protein kinase signaling in human osteosarcoma cells stimulated with nicotine. 2005 , 40, 176-81	10
942	Onychin inhibits proliferation of vascular smooth muscle cells by regulating cell cycle. 2005 , 26, 205-11	13
941	Activation of Raf1 and the ERK pathway in response to l-ascorbic acid in acute myeloid leukemia cells. 2005 , 17, 111-9	22
940	The epidermal growth factor-pathway is not involved in down-regulation of Ca(2+)-induced Cl-secretion in rat distal colon. 2005 , 512, 67-71	6
939	Dehydroepiandrosterone negatively regulates the p38 mitogen-activated protein kinase pathway by a novel mitogen-activated protein kinase phosphatase. 2005 , 1728, 84-94	13
938	Transcriptional regulation of human CC chemokine CCL15 gene by NF-kappaB and AP-1 elements in PMA-stimulated U937 monocytoid cells. 2005 , 1732, 38-42	7
937	Lysophosphatidic acid stimulates cell proliferation in rat chondrocytes. 2005 , 70, 1764-71	23
936	T-type calcium channel trigger p21ras signaling pathway to ERK in Cav3.1-expressed HEK293 cells. 2005 , 1054, 22-9	13
935	Role of raf proteins in cardiac hypertrophy and cardiomyocyte survival. 2005 , 15, 225-9	46

934	Galanin and galanin receptors in human cancers. 2005 , 39, 353-9	42
933	Gene expression patterns associated with blood-feeding in the malaria mosquito Anopheles gambiae. 2005 , 6, 5	112
932	Inflammatory cytokines reaction elicited by root-end filling materials. 2005, 73, 123-8	38
931	Adhesion-dependent redistribution of MAP kinase and MEK promotes muscarinic receptor-mediated signaling to the nucleus. 2005 , 95, 366-78	10
930	Genistein-induced neuronal differentiation is associated with activation of extracellular signal-regulated kinases and upregulation of p21 and N-cadherin. 2005 , 96, 1061-70	14
929	Activation of MAP kinase by muscarinic cholinergic receptors induces cell proliferation and protein synthesis in human breast cancer cells. 2005 , 204, 678-86	63
928	ORF61 protein of Varicella-zoster virus influences JNK/SAPK and p38/MAPK phosphorylation. 2005 , 76, 424-33	20
927	Rapid activation of JNK and p38 by glucocorticoids in primary cultured hippocampal cells. 2005 , 80, 510-7	47
926	Ochratoxin A at nanomolar concentrations: a signal modulator in renal cells. 2005, 49, 118-30	81
925	Insulin-like growth factor-I induces the phosphorylation and nuclear exclusion of forkhead transcription factors in human neuroblastoma cells. 2005 , 10, 831-40	32
924	Magnolol induces the distributional changes of p160 and adipose differentiation-related protein in adrenal cells. 2005 , 123, 429-39	2
923	Infectious inflammation of the CNS involves activation of mitogen-activated protein kinase and AKT proteins in CSF in humans. 2005 , 26, 324-9	6
922	Cell cycle regulation of astrocytes by extracellular nucleotides and fibroblast growth factor-2. 2005 , 1, 329-36	29
921	Involvement of the p38 MAP kinase in Cr(VI)-induced growth arrest and apoptosis. 2005, 279, 69-73	17
920	Expression of pERK in the Neurons and Microglia in the Spinal Cord of the Rat with Neuropathic Pain. 2005 , 1, 19	1
919	Impact of Glucose in Peritoneal Dialysis: Saint or Sinner?. 2005 , 25, 415-425	48
918	Reduction of caveolin-3 expression does not inhibit stretch-induced phosphorylation of ERK2 in skeletal muscle myotubes. 2005 , 98, 1554-61	14
917	Experimental membranous nephropathy redux. 2005 , 289, F660-71	93

916 The intracellular signaling cascade and stress. **2005**, 15, 643-663

915	The synthetic peptide Trp-Lys-Tyr-Met-Val-D-Met inhibits human monocyte-derived dendritic cell maturation via formyl peptide receptor and formyl peptide receptor-like 2. 2005 , 175, 685-92	43
914	Beyond single pathway inhibition: MEK inhibitors as a platform for the development of pharmacological combinations with synergistic anti-leukemic effects. 2005 , 11, 2779-95	46
913	Activation of the extracellular signal-regulated kinase by complement C5b-9. 2005 , 289, F593-603	28
912	Insulin potentiates AVP-induced AQP2 expression in cultured renal collecting duct principal cells. 2005 , 288, F334-44	47
911	Insight on the pathogenesis of diabetic nephropathy from the study of podocyte and mesangial cell biology. 2005 , 1, 27-40	83
910	Evidence for a role of mitogen-activated protein kinase 3/mitogen-activated protein kinase in the development of testicular ischemia-reperfusion injury. 2005 , 73, 730-6	34
909	Different activation of mitogen-activated protein kinase and Akt signaling is associated with aggressive phenotype of human meningiomas. 2005 , 11, 4074-82	96
908	Angiopoietin 1 is mitogenic for cultured endothelial cells. 2005 , 65, 6820-7	67
907	Cyclic adenosine 3',5'-monophosphate-dependent activation of mitogen-activated protein kinase in cumulus cells is essential for germinal vesicle breakdown of porcine cumulus-enclosed oocytes. 2005 , 146, 4437-44	50
906	alpha1A-adrenoceptors activate glucose uptake in L6 muscle cells through a phospholipase C-, phosphatidylinositol-3 kinase-, and atypical protein kinase C-dependent pathway. 2005 , 146, 901-12	39
905	Activation of p38 has opposing effects on the proliferation and migration of endothelial cells. 2005 , 280, 20995-1003	114
904	Amphiregulin is a novel growth factor involved in normal bone development and in the cellular response to parathyroid hormone stimulation. 2005 , 280, 3974-81	75
903	Inhibition of Single Minded 2 gene expression mediates tumor-selective apoptosis and differentiation in human colon cancer cells. 2005 , 102, 12765-70	29
902	Modulation of apoptosis in HaCaT keratinocytes via differential regulation of ERK signaling pathway by flavonoids. 2005 , 280, 31498-507	85
901	Long-term exposure to nicotine, via ras pathway, induces cyclin D1 to stimulate G1 cell cycle transition. 2005 , 280, 6369-79	53
900	Hydrogen peroxide-induced extracellular signal-regulated kinase activation in cultured feline ileal smooth muscle cells. 2005 , 312, 391-8	37
899	Mitogen-activated protein kinase mediates luteinizing hormone-induced breakdown of communication and oocyte maturation in rat ovarian follicles. 2005 , 146, 1236-44	126

(2005-2005)

898	A MAPK gene from Dead Sea fungus confers stress tolerance to lithium salt and freezing-thawing: Prospects for saline agriculture. 2005 , 102, 18992-7	50
897	Lipid peroxidation triggers both c-Jun N-terminal kinase (JNK) and extracellular-regulated kinase (ERK) activation and neointimal hyperplasia induced by cessation of blood flow in the mouse carotid artery. 2005 , 178, 295-302	17
896	Reduction of apoptosis through the mitochondrial pathway by the administration of acetyl-L-carnitine to mouse fibroblasts in culture. 2005 , 306, 1-8	50
895	Adiponectin stimulates human osteoblasts proliferation and differentiation via the MAPK signaling pathway. 2005 , 309, 99-109	278
894	The detection of MAPK signaling. 2005 , Chapter 14, Unit 14.3	1
893	Receptor-Signaling Pathways in Heart Failure. 2005 , 123-143	
892	Curcumin inhibits immunostimulatory function of dendritic cells: MAPKs and translocation of NF-kappa B as potential targets. 2005 , 174, 8116-24	241
891	Inflammation and carnitine in hemodialysis patients. 2005 , 15, 8-12	21
890	Oncogenic potential of MEK1 in rat intestinal epithelial cells is mediated via cyclooxygenase-2. 2005 , 129, 577-90	26
889	Molecular biology of malignant mesothelioma: a review. 2005 , 19, 997-1023, v	13
888	Inhibition of different intracellular signal cascades in human pancreatic cancer cells. 2005 , 5, 251-8	3
887	Investigational anti-inflammatory agents for the treatment of ischaemic brain injury. 2005 , 14, 393-409	48
886	Endothelial extracellular matrix: biosynthesis, remodeling, and functions during vascular morphogenesis and neovessel stabilization. 2005 , 97, 1093-107	920
885	Functional endothelin ET B receptors are selectively expressed in human oligodendrogliomas. 2005 , 137, 77-88	17
884	Insulin regulation of GnRH gene expression through MAP kinase signaling pathways. 2005 , 242, 42-9	44
883	Activation of p38 and N-acetylcysteine-sensitive c-Jun NH2-terminal kinase signaling cascades is required for induction of apoptosis in Parkinson's disease cybrids. 2005 , 28, 452-61	38
882	Insulin-like growth factor-1 provides protection against psychosine-induced apoptosis in cultured mouse oligodendrocyte progenitor cells using primarily the PI3K/Akt pathway. 2005 , 30, 398-407	48
881	Evidence that C-terminal non-kinase domain of Pbs2p has a role in high osmolarity-induced nuclear localization of Hog1p. 2005 , 328, 906-13	14

880	alpha(1)-Agonists-induced Mg(2+) efflux is related to MAP kinase activation in the heart. 2005 , 333, 1132-8	15
879	Activation of mitogen-activated protein kinases during human lung transplantation. 2005 , 24, 2079-85	14
878	MCP-1-stimulated chemotaxis of monocytic and endothelial cells is dependent on activation of different signaling cascades. 2005 , 31, 439-46	55
877	Mechanisms and preclinical efficacy of silibinin in preventing skin cancer. 2005 , 41, 1969-79	119
876	Mitogen-activated protein kinases and selected downstream targets display organ-specific responses in the hibernating ground squirrel. 2005 , 37, 679-91	44
875	Inhibition of collagen and DNA biosynthesis by a novel amidine analogue of chlorambucil is accompanied by deregulation of [1]-integrin and IGF-I receptor signaling in MDA-MB 231 cells. 2005 , 20, 118-24	48
874	The transcription factor c-jun is activated in retinal ganglion cells in experimental rat glaucoma. 2005 , 80, 663-70	61
873	Comparative gene array analysis of TNF-alpha-induced MAPK and NF-kappaB signaling pathways between retinal ganglion cells and glial cells. 2005 , 81, 207-17	27
872	"Ins and outs" of seven-transmembrane receptor signalling to ERK. 2005 , 16, 26-33	78
871	Insights into enzyme structure and dynamics elucidated by amide H/D exchange mass spectrometry. 2005 , 433, 34-46	160
870	Molecular mechanism of apoptosis induced by mechanical forces. 2005 , 245, 45-90	65
869	Oncogenic Potential of MEK1 in Rat Intestinal Epithelial Cells Is Mediated via Cyclooxygenase-2. 2005 , 129, 577-590	23
868	Differential effects of echistatin and thrombin on collagen production and prolidase activity in human dermal fibroblasts and their possible implication in beta1-integrin-mediated signaling. 2005 , 51, 217-21	34
867	The effect of hyaluronic acid on interleukin-1-induced deregulation of collagen metabolism in cultured human skin fibroblasts. 2005 , 51, 473-7	22
866	Molecular Mechanisms of Phagocytosis. 2005,	9
865	Reactive species-mediated regulation of cell signaling and the cell cycle: the role of MAPK. 2005 , 7, 726-40	50
864	The Science of Flavonoids. 2006 ,	131
863	Is there peripheral or ovarian insulin action alteration in broiler breeder hens fed ad libitum?. 2006 , 85, 1098-103	O

862	Cartilage destruction by matrix degradation products. 2006 , 16, 197-205	88
861	MAPK Signaling Pathways and Their Recursive Modularization. 2006,	
860	The extracellular signal-regulated kinase: multiple substrates regulate diverse cellular functions. 2006 , 24, 21-44	972
859	Different modulation of TRAIL-induced apoptosis by inhibition of pro-survival pathways in TRAIL-sensitive and TRAIL-resistant colon cancer cells. 2006 , 580, 6565-9	27
858	Increased ERK activation and decreased MKP-1 expression in human myocardium with congestive heart failure. 2006 , 1, 123-130	
857	Chylomicron remnants upregulate CD40 expression via the ERK pathway and a redox-sensitive mechanism in THP-1 cells. 2006 , 187, 257-64	7
856	The effects of a novel MEK inhibitor PD184161 on MEK-ERK signaling and growth in human liver cancer. 2006 , 8, 1-8	56
855	Signaling from p53 to NF-kappaB determines the chemotherapy responsiveness of neuroblastoma. 2006 , 8, 967-77	22
854	Lipid peroxidation activates mitogen-activated protein kinases in testicular ischemia-reperfusion injury. 2006 , 176, 1666-72	22
853	Flavonoids as Nutraceuticals. 2006 , 213-238	35
852	Gene expression profiling following constitutive activation of MEK1 and transformation of rat intestinal epithelial cells. 2006 , 5, 63	11
851	Targeting the ERK signaling pathway in cancer therapy. 2006 , 38, 200-11	318
850	Signal integration during development: mechanisms of EGFR and Notch pathway function and cross-talk. 2006 , 41, 339-85	108
849	Exploration of a binding mode of benzothiazol-2-yl acetonitrile pyrimidine core based derivatives as potent c-Jun N-terminal kinase-3 inhibitors and 3D-QSAR analyses. 2006 , 46, 1763-74	15
848	Expression of hyaluronan synthase genes in umbilical cord blood stem/progenitor cells. 2006, 1760, 890-5	2
847	Short time exposure to hypoxia promotes H9c2 cell growth. 2006 , 1760, 1293-7	5
846	Blockade of the ERK pathway markedly sensitizes tumor cells to HDAC inhibitor-induced cell death. 2006 , 339, 1171-7	37
845	Immunosuppressants inhibit hormone-stimulated Mg2+ uptake in mouse distal convoluted tubule cells. 2006 , 341, 742-8	12

844	Evidence that the MAPK-docking site in MAPKK Dpbs2p is essential for its function. 2006, 346, 562-6	4
843	Nitric oxide inhibits an interaction between JNK1 and c-Jun through nitrosylation. 2006 , 351, 281-6	25
842	Bone morphogenetic protein receptors and bone morphogenetic protein signaling are controlled by tumor necrosis factor-alpha in human bone cells. 2006 , 38, 1794-807	31
841	Microtubule stabilizing agents: their molecular signaling consequences and the potential for enhancement by drug combination. 2006 , 32, 166-79	81
840	Trichosanthin suppresses the elevation of p38 MAPK, and Bcl-2 induced by HSV-1 infection in Vero cells. 2006 , 79, 1287-92	29
839	Mycophenolic acid inhibits mesangial cell activation through p38 MAPK inhibition. 2006, 79, 1561-7	26
838	Differential regulation of matrix degrading enzymes in a TNFalpha-induced model of nucleus pulposus tissue degeneration. 2006 , 25, 409-18	99
837	ERK3 associates with MAP2 and is involved in glucose-induced insulin secretion. 2006 , 251, 33-41	15
836	Activation of mitogen-activated protein kinase (MAPK) by GnRH is cell-context dependent. 2006 , 252, 184-90	67
835	Low concentrations of nitric oxide (NO) induced cell death in PC12 cells through activation of p38 mitogen-activated protein kinase (p38 MAPK) but not via extracellular signal-regulated kinases (ERK1/2) or c-Jun N-terminal protein kinase (JNK). 2006 , 392, 170-3	10
834	Glial cell-derived neurotrophic factor (GDNF) promotes low-grade Hs683 glioma cell migration through JNK, ERK-1/2 and p38 MAPK signaling pathways. 2006 , 56, 29-38	50
833	Activation of extracellular signal-regulated kinase signaling by chronic electroconvulsive shock in the rat frontal cortex. 2006 , 145, 75-8	16
832	Apelin and its receptor are expressed in human osteoblasts. 2006 , 134, 118-25	57
831	Gene expression profiling and analysis of signaling pathways involved in priming and differentiation of human neural stem cells. 2006 , 138, 133-48	20
830	P2 purinergic receptors signal to STAT3 in astrocytes: Difference in STAT3 responses to P2Y and P2X receptor activation. 2006 , 142, 411-23	53
829	ERK phosphorylation is required for retention of trace fear memory. 2006 , 85, 44-57	28
828	Cadmium toxicity on arterioles vascular smooth muscle cells of spontaneously hypertensive rats. 2006 , 3, 323-8	17
827	Peptides targeting protein kinases: strategies and implications. 2006 , 21, 411-8	35

(2014-2006)

826 Endothelin-1 activates Homer 1\(\mathbb{E}\)xpression via mitogen-activated protein kinase in cardiac myocytes. **2006**, 18, 193

825	Pro-inflammatory signaling by Jun-N-terminal kinase in inflammatory bowel disease. 2006 , 17, 449	10
824	Gonadotropin-Releasing Hormone Regulation of Gonadotropin Biosynthesis and Secretion. 2006 , 1635-1701	13
823	TNF-alpha and phosphorylation of ERK in DRG and spinal cord: insights into mechanisms of sciatica. 2006 , 31, 523-9	42
822	Activation pattern of MAPK signaling in the hearts of trained and untrained rats following a single bout of exercise. 2006 , 101, 151-63	48
821	Inhibition of PI3K induces Rac activation and membrane ruffling in proto-Dbl expressing cells. 2006 , 5, 2657-65	5
820	Inhibition of Mitogen-Activated Protein Kinases (MAPKs) as a Strategy to Prevent Intimal Hyperplasia Following Cardiovascular Interventions. 2006 , 3, 173-183	
819	CaMKII protects MKP-1 from proteasome degradation in endothelial cells. 2014 , 26, 2167-74	6
818	Investigational drugs targeting somatostatin receptors for treatment of acromegaly and neuroendocrine tumors. 2014 , 23, 1619-35	24
817	Expression, pharmacology and functional activity of adenosine A1 receptors in genetic models of Huntington's disease. 2014 , 71, 193-204	20
816	The reduced kinome of Ostreococcus tauri: core eukaryotic signalling components in a tractable model species. 2014 , 15, 640	14
815	Apoptosis inhibitor-5 overexpression is associated with tumor progression and poor prognosis in patients with cervical cancer. 2014 , 14, 545	23
814	High-frequency low-level diode laser irradiation promotes proliferation and migration of primary cultured human gingival epithelial cells. 2014 , 29, 1339-47	38
813	Diet and lifestyle factors interact with MAPK genes to influence survival: the Breast Cancer Health Disparities Study. 2014 , 25, 1211-25	13
812	The MEK1/2-ERK1/2 pathway is activated in chronic rhinosinusitis with nasal polyps. 2014 , 62, 217-29	6
811	Compounds from Allium species with cytotoxic and antimicrobial activity. 2014 , 13, 769-791	86
810	Stimulatory Effect of Vascular Endothelial Growth Factor on Proliferation and Migration of Porcine Trophectoderm Cells and Their Regulation by the Phosphatidylinositol-3-Kinase-AKT and Mitogen-Activated Protein Kinase Cell Signaling Pathways. 2014 , 90, 50	24
809	Signal propagation in multi-layer DNAzyme cascades using structured chimeric substrates. 2014 , 53, 7183-7	56

808	RNA-Seq analysis of yak ovary: improving yak gene structure information and mining reproduction-related genes. 2014 , 57, 925-35	19
807	The regulation of reproductive neuroendocrine function by insulin and insulin-like growth factor-1 (IGF-1). 2014 , 35, 558-72	49
806	Deoxyelephantopin impairs growth of cervical carcinoma SiHa cells and induces apoptosis by targeting multiple molecular signaling pathways. 2014 , 30, 331-43	29
805	Oncogene mimicry as a mechanism of primary resistance to BRAF inhibitors. 2014 , 8, 1037-48	57
804	Measurement of downstream kinase activity modulation as indicator of epidermal growth factor receptor inhibitor efficacy. 2014 , 448, 65-7	2
803	Map2k4 identification and functional characterization of a novel Map2k4 splice variant. 2014 , 1843, 875-84	6
802	Proteomics reveal energy metabolism and mitogen-activated protein kinase signal transduction perturbation in human Borna disease virus Hu-H1-infected oligodendroglial cells. 2014 , 268, 284-96	13
801	Mice selectively bred for High and Low fear behavior show differences in the number of pMAPK (p44/42 ERK) expressing neurons in lateral amygdala following Pavlovian fear conditioning. 2014 , 112, 195-203	7
800	Enhancement of the p38 MAPK and PKA signaling pathways is associated with the pro-melanogenic activity of Interleukin 33 in primary melanocytes. 2014 , 73, 110-6	22
799	The MAP(K) of fear: from memory consolidation to memory extinction. 2014 , 105, 8-16	37
798	Cloning, expression and characterization of a gene encoding mitogen activated protein kinase 2 (MPK2) from Tetrahymena thermophila. 2014 , 546, 40-9	4
797	Cadmium induces vascular permeability via activation of the p38 MAPK pathway. 2014 , 450, 447-52	32
796	Andrographolide inhibits tumor angiogenesis via blocking VEGFA/VEGFR2-MAPKs signaling cascade. 2014 , 218, 99-106	36
795	Orostachys japonicus induces apoptosis and cell cycle arrest through the mitochondria-dependent apoptotic pathway in AGS human gastric cancer cells. 2014 , 45, 459-69	18
794	S100A6 stimulates proliferation and migration of colorectal carcinoma cells through activation of the MAPK pathways. 2014 , 44, 781-90	26
793	Neuroendocrine Regulation of Hydromineral Homeostasis. 2015 , 5, 1465-516	35
792	Tranexamic acid evokes pain by modulating neuronal excitability in the spinal dorsal horn. 2015 , 5, 13458	13
791	Retinal ganglion cell apoptotic pathway in glaucoma: Initiating and downstream mechanisms. 2015 , 220, 37-57	50

(2015-2015)

790	Involvement of the mitogen-activated protein kinase signaling pathway in osteoprotegerin-induced inhibition of osteoclast differentiation and maturation. 2015 , 12, 6939-45	6
789	G Protein-coupled pH-sensing Receptor OGR1 Is a Regulator of Intestinal Inflammation. 2015 , 21, 1269-81	46
788	The role of electroacupuncture in stroke treatment: A systematic review of the literature. 2015 , 7, 40-47	1
787	The Ethanol Extract from Lonicera japonica Thunb. Regresses Nonalcoholic Steatohepatitis in a Methionine- and Choline-Deficient Diet-Fed Animal Model. 2015 , 7, 8670-84	18
786	FvBck1, a component of cell wall integrity MAP kinase pathway, is required for virulence and oxidative stress response in sugarcane Pokkah Boeng pathogen. 2015 , 6, 1096	19
785	Expression and function of connexin 43 in human gingival wound healing and fibroblasts. 2015 , 10, e0115524	36
784	The Role of MKP-1 in the Anti-Proliferative Effects of Glucocorticoids in Primary Rat Pre-Osteoblasts. 2015 , 10, e0135358	4
783	Identifying activating mutations in the EGFR gene: prognostic and therapeutic implications in non-small cell lung cancer. 2015 , 41, 365-75	19
782	The Anti-Inflammatory Effect of Human Telomerase-Derived Peptide on P. gingivalis Lipopolysaccharide-Induced Inflammatory Cytokine Production and Its Mechanism in Human Dental Pulp Cells. 2015 , 2015, 385127	24
781	Analysis of gene profiles in glioma cells identifies potential genes, miRNAs, and target sites of migratory cells. 2015 , 101, 542-8	4
78o	Chemotherapy and chemoprevention by thiazolidinediones. 2015 , 2015, 845340	55
779	MAP Kinase Modules in Signaling. 2015 ,	
778	Regulation of cell proliferation by ERK and signal-dependent nuclear translocation of ERK is dependent on Tm5NM1-containing actin filaments. 2015 , 26, 2475-90	40
777	The pore-forming £oxin from clostridium septicum activates the MAPK pathway in a Ras-c-Raf-dependent and independent manner. 2015 , 7, 516-34	17
776	Quercetin-3-O-时-glucopyranosyl-(1년6)-时-glucopyranoside suppresses melanin synthesis by augmenting p38 MAPK and CREB signaling pathways and subsequent cAMP down-regulation in murine melanoma cells. 2015 , 22, 706-13	12
775	The beneficial role of curcumin on inflammation, diabetes and neurodegenerative disease: A recent update. 2015 , 83, 111-24	301
774	Mitochondrial KATP Channels Control Glioma Radioresistance by Regulating ROS-Induced ERK Activation. 2015 , 52, 626-37	20
773	Requirement of ERHand basal activities of EGFR and Src kinase in Cd-induced activation of MAPK/ERK pathway in human breast cancer MCF-7 cells. 2015 , 287, 26-34	33

772	Ramipril inhibits high glucose-stimulated up-regulation of adhesion molecules via the ERK1/2 MAPK signaling pathway in human umbilical vein endothelial cells. 2015 , 20, 937-47	7
771	Naringin induces autophagy-mediated growth inhibition by downregulating the PI3K/Akt/mTOR cascade via activation of MAPK pathways in AGS cancer cells. 2015 , 47, 1061-9	72
770	SNAILs promote G1 phase in selected cancer cells. 2015 , 47, 1863-73	
769	Cardiac and Vascular Receptors and Signal Transduction. 2015 , 251-277	1
768	Toluhydroquinone, the secondary metabolite of marine algae symbiotic microorganism, inhibits angiogenesis in HUVECs. 2015 , 70, 129-39	12
767	Unfractionated heparin attenuates LPS-induced IL-8 secretion via PI3K/Akt/NF- B signaling pathway in human endothelial cells. 2015 , 220, 399-405	28
766	Dietary administration of Nexrutine inhibits rat liver tumorigenesis and induces apoptotic cell death in human hepatocellular carcinoma cells. 2015 , 2, 1-11	12
765	Mimicking bone extracellular matrix: integrin-binding peptidomimetics enhance osteoblast-like cells adhesion, proliferation, and differentiation on titanium. 2015 , 128, 191-200	66
764	Pro-inflammatory properties of shark cartilage supplement. 2015 , 37, 140-7	6
763	The integrated role of ACh, ERK and mTOR in the mechanisms of hippocampal inhibitory avoidance memory. 2015 , 119, 18-33	63
762	The eukaryotic ancestor had a complex ubiquitin signaling system of archaeal origin. 2015, 32, 726-39	33
761	Expression of pref-1/dlk-1 is regulated by microRNA-143 in 3T3-L1 cells. 2015 , 42, 617-24	12
760	Epigenetic regulation of lncRNA connects ubiquitin-proteasome system with infection-inflammation in preterm births and preterm premature rupture of membranes. 2015 , 15, 35	20
759	Impulsive Enzymes: A New Force in Mechanobiology. 2015 , 8, 106-118	24
758	Involvement of neuronal TGF-totivated kinase 1 in the development of tolerance to morphine-induced antinociception in rat spinal cord. 2015 , 172, 2892-904	14
757	Novel candidate key drivers in the integrative network of genes, microRNAs, methylations, and copy number variations in squamous cell lung carcinoma. 2015 , 2015, 358125	21
756	Snail promotes cell migration through PI3K/AKT-dependent Rac1 activation as well as PI3K/AKT-independent pathways during prostate cancer progression. 2015 , 9, 255-64	40
755	The mechanism of Eppioid receptor (MOR)-TRPV1 crosstalk in TRPV1 activation involves morphine anti-nociception, tolerance and dependence. 2015 , 9, 235-43	36

(2015-2015)

754	Ursolic acid inhibits the invasive phenotype of SNU-484 human gastric cancer cells. 2015 , 9, 897-902	37
753	Anti-adipogenic effect of epiberberine is mediated by regulation of the Raf/MEK1/2/ERK1/2 and AMPK#Akt pathways. 2015 , 38, 2153-62	15
75 ²	Protective effect of geranylgeranylacetone against hydrogen peroxide-induced oxidative stress in human neuroblastoma cells. 2015 , 131, 51-6	13
751	NEMix: single-cell nested effects models for probabilistic pathway stimulation. 2015 , 11, e1004078	15
750	Genetic mapping of MAPK-mediated complex traits Across S. cerevisiae. 2015 , 11, e1004913	33
749	Expression, purification and characterization of inactive and active forms of ERK2 from insect expression system. 2015 , 110, 172-9	1
748	Anti-inflammatory effects of novel curcumin analogs in experimental acute lung injury. 2015, 16, 43	61
747	Neuroinflammation in the normal aging hippocampus. 2015 , 309, 84-99	190
746	Buforin IIb induces endoplasmic reticulum stress-mediated apoptosis in HeLa cells. 2015 , 69, 144-9	20
745	Therapeutic uses of somatostatin and its analogues: Current view and potential applications. 2015 , 152, 98-110	82
744	A novel isoform of met receptor tyrosine kinase blocks hepatocyte growth factor/Met signaling and stimulates skeletal muscle cell differentiation. 2015 , 290, 1804-17	5
743	Erocopherol prevents methylglyoxal-induced apoptosis by reducing ROS generation and inhibiting apoptotic signaling cascades in human umbilical vein endothelial cells. 2015 , 6, 1568-77	16
742	GnRH Regulates Gonadotropin Gene Expression Through NADPH/Dual Oxidase-Derived Reactive Oxygen Species. 2015 , 156, 2185-99	14
741	Decursin from Angelica gigas Nakai Inhibits B16F10 Melanoma Growth Through Induction of Apoptosis. 2015 , 18, 1121-7	21
740	Maternal immune activation induces changes in myelin and metabolic proteins, some of which can be prevented with risperidone in adolescence. 2015 , 37, 43-55	26
739	Modeling Signaling Networks to Advance New Cancer Therapies. 2015 , 17, 143-63	24
738	Site-specific processing of Ras and Rap1 Switch I by a MARTX toxin effector domain. 2015 , 6, 7396	41
737	MEK1 dependent and independent ERK activation regulates IL-10 and IL-12 production in bone marrow derived macrophages. 2015 , 27, 2068-76	13

736	Cell signaling pathways involved in drug-mediated fetal hemoglobin induction: Strategies to treat sickle cell disease. 2015 , 240, 1050-64	16
735	Effect of cholesterol reduction on receptor signaling in neurons. 2015 , 290, 26383-92	29
734	Cellular sensing and transport of metal ions: implications in micronutrient homeostasis. 2015 , 26, 1103-15	32
733	Receptor sequestration in response to harrestin-2 phosphorylation by ERK1/2 governs steady-state levels of GPCR cell-surface expression. 2015 , 112, E5160-8	32
732	Primate Torpor: Regulation of Stress-activated Protein Kinases During Daily Torpor in the Gray Mouse Lemur, Microcebus murinus. 2015 , 13, 81-90	27
731	Experimental evidence of MAP kinase gene expression on the response of intestinal anti-inflammatory drugs. 2015 , 136, 60-6	7
730	Piperine inhibits IL-1∄nduced IL-6 expression by suppressing p38 MAPK and STAT3 activation in gastric cancer cells. 2015 , 398, 147-56	43
729	Multiple pro-apoptotic targets of abietane diterpenoids from Salvia species. 2015 , 100, 118-32	46
728	FuncPatch: a web server for the fast Bayesian inference of conserved functional patches in protein 3D structures. 2015 , 31, 523-31	13
727	Molecular Mechanisms of l-DOPA-Induced Dyskinesia. 2016 , 24, 857-871	2
726	Involvement of the MAPK pathway in the pressure-induced synovial metaplasia procedure for the temporomandibular joint. 2016 , 15,	2
725	Chemomics-Integrated Proteomics Analysis of Jie-Geng-Tang to Ameliorate Lipopolysaccharide-Induced Acute Lung Injury in Mice. 2016 , 2016, 7379146	15
724	Xanthine Oxidase-Derived ROS Display a Biphasic Effect on Endothelial Cells Adhesion and FAK Phosphorylation. 2016 , 2016, 9346242	12
723	Low Dose Cadmium Inhibits Proliferation of Human Renal Mesangial Cells via Activation of the JNK Pathway. 2016 , 13,	12
722	The Microbial Opsin Homolog Sop1 is involved in Sclerotinia sclerotiorum Development and Environmental Stress Response. 2015 , 6, 1504	24
721	JNK Inhibition Inhibits Lateral Line Neuromast Hair Cell Development. 2016 , 10, 19	8
720	MLK3 Signaling in Cancer Invasion. 2016 , 8,	21
719	GLP-2 Attenuates LPS-Induced Inflammation in BV-2 Cells by Inhibiting ERK1/2, JNK1/2 and NF- B Signaling Pathways. 2016 , 17, 190	35

Allergic Aspergillus Rhinosinusitis. 2016 , 2,	15
Epigallocatechin Gallate Nanodelivery Systems for Cancer Therapy. 2016 , 8,	73
A MAPK-Driven Feedback Loop Suppresses Rac Activity to Promote RhoA-Driven Cancer Cell Invasion. 2016 , 12, e1004909	32
S1PR1 mediates anti-apoptotic/pro-proliferative processes in human acute myeloid leukemia cells. 2016 , 14, 3369-75	10
Short-term, low-dose cadmium exposure induces hyperpermeability in human renal glomerular endothelial cells. 2016 , 36, 257-65	23
Astragaloside IV Inhibits the Inflammatory Injury of Chicken Type II Pneumocytes Induced by Avian Pathogenic Escherichia coli. 2016 , 39, 1660-9	9
Cilostazol inhibits interleukin-1-induced ADAM17 expression through cAMP independent signaling in vascular smooth muscle cells. 2016 , 40, 269-76	4
Comparative mRNA analysis of behavioral and genetic mouse models of aggression. 2016 , 171B, 427-36	7
Cocaine promotes primary human astrocyte proliferation via JNK-dependent up-regulation of cyclin A2. 2016 , 34, 965-976	8
Growth inhibitory and apoptosis-inducing effects of allergen-free Rhus verniciflua Stokes extract on A549 human lung cancer cells. 2016 , 36, 3037-3043	7
Src tyrosine kinase mediates endothelin-1-induced early growth response protein-1 expression via MAP kinase-dependent pathways in vascular smooth muscle cells. 2016 , 38, 1879-1886	11
Knockdown of MACC1 expression increases cisplatin sensitivity in cisplatin-resistant epithelial ovarian cancer cells. 2016 , 35, 2466-72	14
Role of IL-17 Pathways in Immune Privilege: A RNA Deep Sequencing Analysis of the Mice Testis Exposure to Fluoride. 2016 , 6, 32173	18
Dynamics of Protein Kinase Cascades. 2016 , 44-50	
Accelerating rejection-based simulation of biochemical reactions with bounded acceptance probability. 2016 , 144, 224108	8
BRCA1-deficient breast cancer cell lines are resistant to MEK inhibitors and show distinct sensitivities to 6-thioguanine. 2016 , 6, 28217	13
Identification of critical paralog groups with indispensable roles in the regulation of signaling flow. 2016 , 6, 38588	5
The role of p38 protein kinase in mouse responses to low-intensity electromagnetic radiation of the centimeter range. 2016 , 61, 675-681	
	Epigallocatechin Gallate Nanodelivery Systems for Cancer Therapy. 2016, 8, A MAPK-Driven Feedback Loop Suppresses Rac Activity to Promote RhoA-Driven Cancer Cell Invasion. 2016, 12, e1004909 S1PR1 mediates anti-apoptotic/pro-proliferative processes in human acute myeloid leukemia cells. 2016, 14, 3369-75 Short-term, low-dose cadmium exposure induces hyperpermeability in human renal glomerular endothelial cells. 2016, 36, 257-65 Astragaloside IV Inhibits the Inflammatory Injury of Chicken Type II Pneumocytes Induced by Avian Pathogenic Escherichia coll. 2016, 39, 1660-9 Cilostazol inhibits interleukin-1-induced ADAM17 expression through cAMP independent signaling in vascular smooth muscle cells. 2016, 40, 269-76 Comparative mRNA analysis of behavioral and genetic mouse models of aggression. 2016, 171B, 427-36 Cocaine promotes primary human astrocyte proliferation via JNK-dependent up-regulation of cyclin A2. 2016, 34, 965-976 Growth inhibitory and apoptosis-inducing effects of allergen-free Rhus verniciflua Stokes extract on A549 human lung cancer cells. 2016, 36, 3037-3043 Src tyrosine kinase mediates endothelin-1-induced early growth response protein-1 expression via MAP kinase-dependent pathways in vascular smooth muscle cells. 2016, 38, 1879-1886 Knockdown of MACC1 expression increases cisplatin sensitivity in cisplatin-resistant epithelial ovarian cancer cells. 2016, 35, 2466-72 Role of IL-17 Pathways in Immune Privilege: A RNA Deep Sequencing Analysis of the Mice Testis Exposure to Fluoride. 2016, 6, 32173 Dynamics of Protein Kinase Cascades. 2016, 44-50 Accelerating rejection-based simulation of biochemical reactions with bounded acceptance probability. 2016, 144, 224108 BRCA1-deficient breast cancer cell lines are resistant to MEK inhibitors and show distinct sensitivities to 6-thioguanine. 2016, 6, 28217 Identification of critical paralog groups with indispensable roles in the regulation of signaling flow. 2016, 6, 38588 The role of p38 protein kinase in mouse responses to low-intensity

700 PHOCOS: inferring multi-feature phenotypic crosstalk networks. **2016**, 32, i44-i51

699	Subcellular localisation of pMEK has a different prognosis in locally advanced head and neck cancer treated with concomitant radiochemotherapy. 2016 , 16, 829	O
698	Geranylgeranylacetone induces apoptosis via the intrinsic pathway in human melanoma cells. 2016 , 82, 15-9	7
697	Discovery of (S)-1-(1-(4-Chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyrid (GDC-0994), an Extracellular Signal-Regulated Kinase 1/2 (ERK1/2) Inhibitor in Early Clinical	in- <u>/</u> 2(1H)-o
696	Silence of bFGF enhances chemosensitivity of glioma cells to temozolomide through the MAPK signal pathway. 2016 , 48, 501-8	8
695	Network Architecture Predisposes an Enzyme to Either Pharmacologic or Genetic Targeting. 2016 , 2, 112-121	15
694	Bioorthogonal Chemical Activation of Kinases in Living Systems. 2016 , 2, 325-31	89
693	Application of Computational Intelligence to Biology. 2016 ,	
692	Effects of PARP-1 inhibitor and ERK inhibitor on epithelial mesenchymal transitions of the ovarian cancer SKOV3 cells. 2016 , 68, 1225-1229	12
691	ERK activation in endothelial cells is a novel marker during neovasculogenesis. 2016 , 21, 1164-1175	15
690	Caffeic acid attenuated acetaminophen-induced hepatotoxicity by inhibiting ERK1/2-mediated early growth response-1 transcriptional activation. 2016 , 260, 186-195	10
689	GART mediates the renewal of intestinal epithelial barrier via p38/p53/PUMA cascade in colitis. 2016 , 21, 1386-1397	4
688	Braf Mutations Initiate the Development of Rat Gliomas Induced by Postnatal Exposure to N-Ethyl-N-Nitrosourea. 2016 , 186, 2569-76	6
687	Fluoride-induced headkidney macrophage cell apoptosis involves activation of the CaMKII-ERK 1/2-caspase-8 axis: the role of superoxide in initiating the apoptotic cascade. 2016 , 5, 1477-1489	8
686	Surface guidance of stem cell behavior: Chemically tailored co-presentation of integrin-binding peptides stimulates osteogenic differentiation in vitro and bone formation in vivo. 2016 , 43, 269-281	40
685	Vinculin b deficiency causes epicardial hyperplasia and coronary vessel disorganization in zebrafish. 2016 , 143, 3522-3531	11
684	A review about the development of fucoidan in antitumor activity: Progress and challenges. 2016 , 154, 96-111	120
683	Electromagnetic Fields and Stem Cell Fate: When Physics Meets Biology. 2016 , 171, 63-97	9

(2016-2016)

682	Cell type-dependent Erk-Akt pathway crosstalk regulates the proliferation of fetal neural progenitor cells. 2016 , 6, 26547	20
681	Characterization of Macrophage-Activating Polysaccharide Isolated from Fermented Brown Rice. 2016 , 19, 1147-1154	4
680	The SHP2-ERK2 signaling pathway regulates branched I antigen formation by controlling the binding of CCAAT/enhancer binding protein to the IGnTC promoter region during erythroid differentiation. 2016 , 56, 2691-2702	7
679	Estrogen receptor signaling in the ferutinin-induced osteoblastic differentiation of human amniotic fluid stem cells. 2016 , 164, 15-22	8
678	The therapeutic potential of sulforaphane on light-induced photoreceptor degeneration through antiapoptosis and antioxidant protection. 2016 , 100, 52-61	8
677	Prolidase-proline dehydrogenase/proline oxidase-collagen biosynthesis axis as a potential interface of apoptosis/autophagy. 2016 , 42, 341-8	20
676	Reviews of Physiology, Biochemistry and Pharmacology, Vol. 171. 2016 ,	
675	The Role of the Interaction of p53 and the MAPK Cascade in Controlling Neuronal Differentiation in the PC12 Cell Line. 2016 , 46, 559-565	1
674	HIV Interferes with Mycobacterium tuberculosis Antigen Presentation in Human Dendritic Cells. 2016 , 186, 3083-3093	13
673	DYT-40, a novel synthetic 2-styryl-5-nitroimidazole derivative, blocks malignant glioblastoma growth and invasion by inhibiting AEG-1 and NF-B signaling pathways. 2016 , 6, 27331	6
672	The role of STIM1 in the Cr(vi)-induced [Ca] increase and cell injury in L-02 hepatocytes. 2016 , 8, 1273-1282	8
671	The hibernating South American marsupial, Dromiciops gliroides, displays torpor-sensitive microRNA expression patterns. 2016 , 6, 24627	34
670	Protective function of pyridoxamine on retinal photoreceptor cells via activation of the p-Erk1/2/Nrf2/Trx/ASK1 signalling pathway in diabetic mice. 2016 , 14, 420-4	8
669	Leucine-enkephalin promotes wound repair through the regulation of hemidesmosome dynamics and matrix metalloprotease. 2016 , 76, 57-64	9
668	Detection of phosphorylated Akt and MAPK in cell culture assays. 2016 , 3, 386-98	7
667	Label-free cell phenotypic profiling and pathway deconvolution of neurotensin receptor-1. 2016 , 108, 39-45	16
666	Analyzing ERK 1/2 signalling and targets. 2016 , 12, 2436-46	16
665	Effects of electromagnetic fields on osteoporosis: A systematic literature review. 2016 , 35, 384-90	9

664	The gonadotropin-releasing hormone system: Perspectives from reproduction to cancer (Review). 2016 , 48, 861-8	14
663	Molecular Mechanism: ERK Signaling, Drug Addiction, and Behavioral Effects. 2016 , 137, 1-40	34
662	The Rapamycin-Sensitive Complex of Mammalian Target of Rapamycin Is Essential to Maintain Male Fertility. 2016 , 186, 324-36	16
661	Nicotinic modulation of hippocampal cell signaling and associated effects on learning and memory. 2016 , 155, 162-71	40
660	MicroRNA regulation in heart and skeletal muscle over the freeze-thaw cycle in the freeze tolerant wood frog. 2016 , 186, 229-41	23
659	Naringenin-induced migration of embrynoic trophectoderm cells is mediated via PI3K/AKT and ERK1/2 MAPK signaling cascades. 2016 , 428, 28-37	10
658	Leptin induces the generation of procoagulant, tissue factor bearing microparticles by human peripheral blood mononuclear cells. 2016 , 1860, 1354-61	15
657	Fibrosis: Overview. 2016 , 1-20	
656	Mammary epithelial tubes elongate through MAPK-dependent coordination of cell migration. 2016 , 143, 983-93	45
655	Stimulatory effects of interleukin-1 beta on development of porcine uterine epithelial cell are mediated by activation of the ERK1/2 MAPK cell signaling cascade. 2016 , 419, 225-34	19
654	Cutaneous manifestations of nontargeted and targeted chemotherapies. 2016 , 43, 419-25	15
653	Angiotensin II-triggered kinase signaling cascade in the central nervous system. 2016 , 27, 301-15	2 O
652	Activation of ERK pathway is required for 15-HETE-induced angiogenesis in human umbilical vascular endothelial cells. 2016 , 36, 225-32	12
651	Genetic assimilation: a review of its potential proximate causes and evolutionary consequences. 2016 , 117, 769-79	103
650	Dual-faced SH3BGRL: oncogenic in mice, tumor suppressive in humans. 2016 , 35, 3303-13	14
649	Regulation of matrix metalloproteinase-1 and alpha-smooth muscle actin expression by interleukin-1 alpha and tumour necrosis factor alpha in hepatic stellate cells. 2017 , 69, 461-468	13
648	Sam68 is a regulator of Toll-like receptor signaling. 2017 , 14, 107-117	9
647	Effect of dietary Astragalus Polysaccharide supplements on testicular miRNA expression profiles and enzymatic changes of breeder cocks. 2017 , 7, 38864	16

646	Synergistic action of cisplatin and echistatin in MDA-MB-231 breast cancer cells. 2017 , 427, 13-22	14
645	Mitochondrial reactive oxygen species regulate fungal protease-induced inflammatory responses. 2017 , 378, 86-94	7
644	Octacosanol Attenuates Inflammation in Both RAW264.7 Macrophages and a Mouse Model of Colitis. 2017 , 65, 3647-3658	51
643	Lysyl oxidase propeptide promotes adipogenesis through inhibition of FGF-2 signaling. 2017 , 6, 12-19	5
642	A Systems Perspective of Signalling Networks in HostPathogen Interactions. 2017, 97, 41-57	
641	Cigarette smoke extract-induced proliferation of normal human urothelial cells via the MAPK/AP-1 pathway. 2017 , 13, 469-475	20
640	New Challenges in Cancer Therapy: MAPK Inhibitors from Bench to Bedside. 2017 , 67-91	1
639	Partial p53-dependence of anisomycin-induced apoptosis in PC12 cells. 2017 , 434, 41-50	1
638	Loss of DUSP3 activity radiosensitizes human tumor cell lines via attenuation of DNA repair pathways. 2017 , 1861, 1879-1894	9
637	MicroRNA-329-3p targets MAPK1 to suppress cell proliferation, migration and invasion in cervical cancer. 2017 , 37, 2743-2750	44
636	The Structural Basis of Arrestin Functions. 2017,	1
635	Korean Red Ginseng Extract Enhances the Anticancer Effects of Sorafenib through Abrogation of CREB and c-Jun Activation in Renal Cell Carcinoma. 2017 , 31, 1078-1089	13
634	Survive or thrive: tradeoff strategy for cellular senescence. 2017 , 49, e342	10
633	MicroRNA expression analysis during FK506-induced osteogenic differentiation in rat bone marrow stromal cells. 2017 , 16, 581-590	5
632	Different expression patterns of sperm motility-related genes in testis of diploid and tetraploid cyprinid fish 2017, 96, 907-920	13
631	A molluscan extracellular signal-regulated kinase is involved in host response to immune challenges in vivo and in vitro. 2017 , 62, 311-319	4
630	c-Jun N-terminal kinase and p38 mitogen-activated protein kinase pathways link capacitation with apoptosis and seminal plasma proteins protect sperm by interfering with both routes 2017, 96, 800-815	13
629	Potential Involvement of the IL-6/JAK/STAT3 Pathway in the Pathogenesis of Intervertebral Disc Degeneration. 2017 , 42, E817-E824	23

628	The lipopolysaccharide lipid A structure from the marine sponge-associated bacterium Pseudoalteromonas sp. 2A. 2017 , 110, 1401-1412	9
627	Oocyte maturation-related gene expression in the canine oviduct, cumulus cells, and oocytes and effect of co-culture with oviduct cells on in vitro maturation of oocytes. 2017 , 34, 929-938	21
626	Simultaneous overexpression of human E5NT and ENTPD1 protects porcine endothelial cells against HO-induced oxidative stress and cytotoxicity in vitro. 2017 , 108, 320-333	11
625	Necrotrophic Mycoparasites and Their Genomes. 2017 , 5,	49
624	Genomic copy number variation associated with clinical outcome in canine cutaneous mast cell tumors. 2017 , 111, 26-30	8
623	Exogenous substances regulate silkworm fat body protein synthesis through MAPK and PI3K/Akt signaling pathways. 2017 , 171, 202-207	15
622	Mathematical model for transport of DNA plasmids from the external medium up to the nucleus by electroporation. 2017 , 285, 1-13	5
621	A Rationale for Targeting Extracellular Regulated Kinases ERK1 and ERK2 in Glioblastoma. 2017 , 76, 838-847	12
620	Somatostatin analogs in the treatment of neuroendocrine tumors: current and emerging aspects. 2017 , 18, 1679-1689	14
619	TGF-酶nd IL-6 family signalling crosstalk: an integrated model. 2017 , 35, 100-124	6
618	Ethyl acetate fraction of Terminalia bellirica (Gaertn.) Roxb. fruits inhibits proinflammatory mediators via down regulating nuclear factor- B in LPS stimulated Raw 264.7 cells. 2017 , 95, 1654-1660	10
617	Die Geschichte der Ophthalmoonkologie an der UnivAugenklinik Graz. 2017 , 31, 135-151	
616	S100A6 promotes proliferation of intrahepatic cholangiocarcinoma cells via the activation of the p38/MAPK pathway. 2017 , 13, 2053-2063	5
615	Phenotypic change in trigeminal ganglion neurons associated with satellite cell activation via extracellular signal-regulated kinase phosphorylation is involved in lingual neuropathic pain. 2017 , 46, 2190-2202	27
614	Acetylenic derivative of betulin induces apoptosis in endometrial adenocarcinoma cell line. 2017 , 95, 429-436	9
613	The analgesic activities of Stauntonia brachyanthera and YM through regulating inflammatory mediators and directly controlling the sodium channel prompt. 2017 , 7, 7574	4
612	Sodium appetite elicited by low-sodium diet is dependent on p44/42 mitogen-activated protein kinase (extracellular signal-regulated kinase 1/2) activation in the brain. 2017 , 29, e12530	О
611	A compendium of ERK targets. 2017 , 591, 2607-2615	66

(2017-2017)

610	Interaction between calcitonin gene-related peptide-immunoreactive neurons and satellite cells via P2Y R in the trigeminal ganglion is involved in neuropathic tongue pain in rats. 2017 , 125, 444-452	14
609	Trigeminal nervous system sensitization by infraorbital nerve injury enhances responses in a migraine model. 2017 , 37, 1317-1328	9
608	extract suppresses colorectal cancer growth through multiple cellular pathways. 2017 , 14, 8197-8205	10
607	p38 MAPK-MK2 pathway regulates the heat-stress-induced accumulation of reactive oxygen species that mediates apoptotic cell death in glial cells. 2018 , 15, 775-782	15
606	Molecular Regulation of Sprouting Angiogenesis. 2017 , 8, 153-235	29
605	Association Study of Common Variants in PFN1 With Hypertension in a Han Chinese Population: A Case-Control Study and A Follow-up Study. 2017 , 30, 1024-1031	4
604	miR-422a inhibits cell proliferation in colorectal cancer by targeting AKT1 and MAPK1. 2017, 17, 91	25
603	Protective Effects of Dietary Polyphenols in Human Diseases and Mechanisms of Action. 2017 , 307-345	2
602	Midostaurin inhibits hormone-refractory prostate cancer PC-3 cells by modulating nPKCs and AP-1 transcription factors and their target genes involved in cell cycle. 2017 , 12, 421-429	1
601	Vagus nerve stimulation inhibits trigeminal nociception in a rodent model of episodic migraine. 2017 , 2, e628	26
600	Necrotrophic Mycoparasites and Their Genomes. 2017 , 1005-1026	7
599	Extract Exhibits Anti-cancer Activity against HeLa Cervical Cancer Cells. 2017 , 8, 630	18
598	4.9 Integrin-Activated Reactions to Metallic Implant Surfaces ?. 2017 , 130-151	
597	Reactive Oxygen Species Link Gonadotropin-Releasing Hormone Receptor Signaling Cascades in the Gonadotrope. 2017 , 8, 286	9
596	RNA Sequencing of Murine Norovirus-Infected Cells Reveals Transcriptional Alteration of Genes Important to Viral Recognition and Antigen Presentation. 2017 , 8, 959	12
595	The Mitogen-Activated Protein Kinase Governs Appressorium Formation, Melanin Synthesis, and Plant Infection of. 2017 , 8, 2216	26
594	Neuronal Nitric Oxide Synthase Contributes to PTZ Kindling-Induced Cognitive Impairment and Depressive-Like Behavior. 2017 , 11, 203	19
593	The Role of MAPK and Dopaminergic Synapse Signaling Pathways in Antidepressant Effect of Electroacupuncture Pretreatment in Chronic Restraint Stress Rats. 2017 , 2017, 2357653	14

592	Indirubin Treatment of Lipopolysaccharide-Induced Mastitis in a Mouse Model and Activity in Mouse Mammary Epithelial Cells. 2017 , 2017, 3082805	19
591	Valproic Acid Protects Primary Dopamine Neurons from MPP-Induced Neurotoxicity: Involvement of GSK3 Phosphorylation by Akt and ERK through the Mitochondrial Intrinsic Apoptotic Pathway. 2017 , 2017, 8124501	12
590	Blockage of NOX2/MAPK/NF-B Pathway Protects Photoreceptors against Glucose Deprivation-Induced Cell Death. 2017 , 2017, 5093473	4
589	Inferring gene and protein interactions using PubMed citations and consensus Bayesian networks. 2017 , 12, e0186004	8
588	Longistyline C acts antidepressant in vivo and neuroprotection in vitro against glutamate-induced cytotoxicity by regulating NMDAR/NR2B-ERK pathway in PC12 cells. 2017 , 12, e0183702	17
587	Role of MEK partner-1 in cancer stemness through MEK/ERK pathway in cancerous neural stem cells, expressing EGFRviii. 2017 , 16, 140	18
586	Rosiglitazone increases endothelial cell migration and vascular permeability through Akt phosphorylation. 2017 , 18, 62	23
585	MicroRNA-454 inhibits the malignant biological behaviours of gastric cancer cells by directly targeting mitogen-activated protein kinase 1. 2018 , 39, 1494-1504	8
584	MicroRNA-320 targets mitogen-activated protein kinase 1 to inhibit cell proliferation and invasion in epithelial ovarian cancer. 2017 , 16, 8530-8536	5
583	Chrysophanic acid reduces testosterone-induced benign prostatic hyperplasia in rats by suppressing 5\(\text{Heductase}\) eductase and extracellular signal-regulated kinase. 2017 , 8, 9500-9512	21
582	BRIM-P: A phase I, open-label, multicenter, dose-escalation study of vemurafenib in pediatric patients with surgically incurable, BRAF mutation-positive melanoma. 2018 , 65, e26947	27
581	Toward an integrated map of genetic interactions in cancer cells. 2018 , 14, e7656	46
580	High-power, red-light-emitting diode irradiation enhances proliferation, osteogenic differentiation, and mineralization of human periodontal ligament stem cells via ERK signaling pathway. 2018 , 89, 351-360	19
579	S100A7 Regulates Ovarian Cancer Cell Metastasis and Chemoresistance Through MAPK Signaling and Is Targeted by miR-330-5p. 2018 , 37, 491-500	17
578	Poria cocos polysaccharide attenuates RANKL-induced osteoclastogenesis by suppressing NFATc1 activity and phosphorylation of ERK and STAT3. 2018 , 647, 76-83	12
577	HSP70 Facilitates Memory Consolidation of Fear Conditioning through MAPK Pathway in the Hippocampus. 2018 , 375, 108-118	16
576	Isoform-selective activity-based profiling of ERK signaling. 2018, 9, 2419-2431	26
575	Histone deacetylase-4 and histone deacetylase-8 regulate interleukin-1∄nduced cartilage catabolic degradation through MAPK/JNK and ERK pathways. 2018 , 41, 2117-2127	26

(2018-2018)

574	Diminished expression of ₹-GPI is associated with a reduced ability to mitigate complement activation in anti-GPIIb/IIIa-mediated immune thrombocytopenia. 2018 , 97, 641-654	6
573	6-(7-nitro-2,1,3-benzoxadiazol-4-ylthio) hexanol: a promising new anticancer compound. 2018 , 38,	10
572	Magnolol protects Ctenopharyngodon idella kidney cells from apoptosis induced by grass carp reovirus. 2018 , 74, 426-435	15
571	Methods and approaches to disease mechanisms using systems kinomics. 2018 , 3, 34-43	5
570	Complex Glucomannan From Ganoderma atrum. 2018 , 205-294	
569	Skin Tumors and Reactions to Cancer Therapy in Children. 2018 ,	
568	The effector Ceg4 is a phosphotyrosine phosphatase that attenuates activation of eukaryotic MAPK pathways. 2018 , 293, 3307-3320	5
567	Effects of high-frequency near-infrared diode laser irradiation on the proliferation and migration of mouse calvarial osteoblasts. 2018 , 33, 959-966	11
566	Emerging therapeutic targets for treatment of leishmaniasis. 2018, 22, 467-486	28
565	Transcriptomics analysis revealing candidate networks and genes for the body size sexual dimorphism of Chinese tongue sole (Cynoglossus semilaevis). 2018 , 18, 327-339	25
564	Dictyostelium Erk2 is an atypical MAPK required for chemotaxis. 2018 , 46, 154-165	13
563	Success stories of natural product-based hybrid molecules for multi-factorial diseases. 2018 , 151, 62-97	44
562	Differential roles of PKC isoforms (PKCs) in GnRH stimulation of MAPK phosphorylation in gonadotrope derived cells. 2018 , 463, 97-105	14
561	The Effect and Osteoblast Signaling Response of Trace Silicon Doping Hydroxyapatite. 2018 , 181, 82-94	12
560	Effect of Miscanthus sinensis var. purpurascens Flower Extract on Proliferation and Molecular Regulation in Human Dermal Papilla Cells and Stressed C57BL/6 Mice. 2018 , 24, 591-599	6
559	Stress-responsive microRNAs are involved in re-programming of metabolic functions in hibernators. 2018 , 233, 2695-2704	16
558	IL-1#educes GluA1 phosphorylation and its surface expression during memory reconsolidation and #melanocyte-stimulating hormone can modulate these effects. 2018 , 128, 314-323	8
557	Gut microbiome modulates response to anti-PD-1 immunotherapy in melanoma patients. 2018 , 359, 97-103	1895

556	Sustained MAPK/ERK Activation in Adult Schwann Cells Impairs Nerve Repair. 2018, 38, 679-690	36
555	Rae1-mediated nuclear export of Rnc1 is an important determinant in controlling MAPK signaling. 2018 , 64, 103-108	5
554	Genome-wide identification, molecular evolution, and expression analysis of auxin response factor (ARF) gene family in Brachypodium distachyon L. 2018 , 18, 336	21
553	Anti-Cancer and Radio-Sensitizing Effects of Curcumin in Nasopharyngeal Carcinoma. 2018 , 24, 2121-2128	16
552	Granulocyte-macrophage colony-stimulating factor receptor expression in clinical pain disorder tissues and role in neuronal sensitization. 2018 , 3, e676	16
551	Characterization of LiMAPK gene in response to salinity stress in Tiger lily (Lilium lancifolium Thunb.). 2018 , 32, 1154-1166	1
550	Protective effects of astaxanthin on diabetic cardiomyopathy in rats. 2018 , 16, 909-915	2
549	Discovery and Development of GDC-0994: A Selective and Efficacious Small Molecule Inhibitor of ERK1/2. 2018 , 1-28	2
548	Apelin-13 attenuates ER stress-associated apoptosis induced by MPP+ in SH-SY5Y cells. 2018 , 42, 1732-1740	12
547	Low-dose cadmium activates the JNK signaling pathway in human renal podocytes. 2018 , 41, 2359-2365	6
546	ERK activating peptide, AES16-2M promotes wound healing through accelerating migration of keratinocytes. 2018 , 8, 14398	14
545	Nell-1 Enhances Osteogenic Differentiation of Pre-Osteoblasts on Titanium Surfaces via the MAPK-ERK Signaling Pathway. 2018 , 50, 1522-1534	15
544	Emergent memory in cell signaling: Persistent adaptive dynamics in cascades can arise from the diversity of relaxation time-scales. 2018 , 8, 13230	7
543	Promotes Neuroprotection Dependently of AKT and ERK Phosphorylation but Does Not Prevent Mitochondrial Damage by 6-OHDA. 2018 , 2018, 2131895	3
542	Zerumbone, a Tropical Ginger Sesquiterpene of Roscoe, Attenuates BMSH-Induced Melanogenesis in B16F10 Cells. 2018 , 19,	13
541	miR-133: A Suppressor of Cardiac Remodeling?. 2018 , 9, 903	57
540	Identification of tyrosine autophosphorylation sites of Arabidopsis MEKK1 and their involvement in the regulation of kinase activity. 2018 , 592, 3327-3334	2
539	Therapeutic potential of curcumin in diabetic complications. 2018 , 136, 181-193	78

538	Chemoproteomic Discovery of a Ritanserin-Targeted Kinase Network Mediating Apoptotic Cell Death of Lung Tumor Cells. 2018 , 94, 1246-1255	9
537	Anti-Inflammatory Effect of a Polyphenol-Enriched Fraction from on Lipopolysaccharide-Stimulated RAW 264.7 Macrophages and Acetaminophen-Induced Liver Injury in Mice. 2018 , 2018, 7858094	12
536	Control of Grain Size and Weight by the OsMKKK10-OsMKK4-OsMAPK6 Signaling Pathway in Rice. 2018 , 11, 860-873	74
535	Molecular cloning and characterization of a putative mitogen-activated protein kinase (Erk1/2) gene: Involvement in mantle immunity of Pinctada fucata. 2018 , 80, 63-70	7
534	Molecular Filters for Noise Reduction. 2018, 114, 3000-3011	13
533	Mammalian Sterile20-like Kinases: Signalings and Roles in Central Nervous System. 2018 , 9, 537-552	15
532	Effects of 18-Glycyrrhetinic Acid on Fungal Protease-Induced Airway Inflammatory Responses. 2018 , 2018, 6461032	7
531	Cistanche deserticola polysaccharide attenuates osteoclastogenesis and bone resorption via inhibiting RANKL signaling and reactive oxygen species production. 2018 , 233, 9674-9684	17
530	Sustained stimulation of 即and 即drenergic receptors leads to persistent functional pain and neuroinflammation. 2018 , 73, 520-532	28
529	Berberine Improves Benign Prostatic Hyperplasia via Suppression of 5 Alpha Reductase and Extracellular Signal-Regulated Kinase and. 2018 , 9, 773	18
528	Ultrasound-targeted microbubble destruction-mediated miR-205 enhances cisplatin cytotoxicity in prostate cancer cells. 2018 , 18, 3242-3250	11
527	Hydroxysafflor yellow A (HSYA) targets the NF- B and MAPK pathways and ameliorates the development of osteoarthritis. 2018 , 9, 4443-4456	23
526	Induction of Avian 即efensin 2 Is Possibly Mediated by the p38 MAPK Signal Pathway in Chicken Embryo Fibroblasts After Newcastle Disease Virus Infection. 2018 , 9, 751	12
525	Hypersensitivity of Prelimbic Cortex Neurons Contributes to Aggravated Nociceptive Responses in Rats With Experience of Chronic Inflammatory Pain. 2018 , 11, 85	22
524	Effect of particulate matter 2.5 on gene expression profile and cell signaling in JEG-3 human placenta cells. 2018 , 33, 1123-1134	8
523	Apoptosis: Activation and Inhibition in Health and Disease. 2018 , 6,	7
522	TGF-#SMAD4 mediated UCP2 downregulation contributes to Aspergillus protease-induced inflammation in primary bronchial epithelial cells. 2018 , 18, 104-113	10
521	JNK, p38, ERK, and SGK1 Inhibitors in Cancer. 2017 , 10,	102

520	SPRED2 deficiency may lead to lung ischemia-reperfusion injury via ERK1/2 signaling pathway activation. 2018 , 48, 1089-1095	11
519	URMC-099 facilitates amyloid-∉learance in a murine model of Alzheimer's disease. 2018 , 15, 137	22
518	Screening Mammalian Cochlear Hair Cells to Identify Critical Processes in Aminoglycoside-Mediated Damage. 2018 , 12, 179	2
517	Alpha4-overexpressing HL7702 cells can counteract microcystin-LR effects on cytoskeletal structure. 2018 , 33, 978-987	1
516	Low-intensity pulsed ultrasound in combination with SonoVue induces cytotoxicity of human renal glomerular endothelial cells via repression of the ERK1/2 signaling pathway. 2018 , 40, 458-465	2
515	Expression variation and covariation impair analog and enable binary signaling control. 2018 , 14, e7997	3
514	Astragaloside IV ameliorates early diabetic nephropathy by inhibition of MEK1/2-ERK1/2-RSK2 signaling in streptozotocin-induced diabetic mice. 2018 , 46, 2883-2897	15
513	Adaptive Responses as Mechanisms of Resistance to BRAF Inhibitors in Melanoma. 2019 , 11,	12
512	Targeting inhibitors of apoptosis in oral squamous cell carcinoma in Ditro. 2019, 47, 1589-1599	6
511	Quantification of the Dynamic Phosphorylation Process of ERK Using Stable Isotope Dilution Selective Reaction Monitoring Mass Spectrometry. 2019 , 19, e1900086	4
510	Anti-inflammatory and Immunomodulatory Effects of Marine n-3 Polyunsaturated Fatty Acids on Human Health and Diseases. 2019 , 18, 481-492	5
509	Troxerutin suppresses the inflammatory response in advanced glycation end-product-administered chondrocytes and attenuates mouse osteoarthritis development. 2019 , 10, 5059-5069	5
508	Whole genome sequencing of Asia II 1 species of whitefly reveals that genes involved in virus transmission and insecticide resistance have genetic variances between Asia II 1 and MEAM1 species. 2019 , 20, 507	17
507	MicroRNA-374a, -4680, and -133b suppress cell proliferation through the regulation of genes associated with human cleft palate in cultured human palate cells. 2019 , 12, 93	15
506	AtDPG1 is involved in the salt stress response of Arabidopsis seedling through ABI4. 2019 , 287, 110180	5
505	The potential role of regulatory microRNAs of RAS/MAPK signaling pathway in the pathogenesis of colorectal cancer. 2019 , 120, 19245-19253	19
504	Angiotensin II Influences Pre-mRNA Splicing Regulation by Enhancing Transcription Through Activation of the MAPK/ELK1 Signaling Pathway. 2019 , 20,	5
503	Heat Shock Proteins in Neuroscience. 2019 ,	

502	Multi-Target Chemometric Modelling, Fragment Analysis and Virtual Screening with ERK Inhibitors as Potential Anticancer Agents. 2019 , 24,	11
501	Berberine induces apoptosis in non-small-cell lung cancer cells by upregulating miR-19a targeting tissue factor. 2019 , 11, 9005-9015	23
500	The role and mechanism of Asian medicinal plants in treating skin pigmentary disorders. 2019 , 245, 112173	10
499	The molecular mechanism of the antagonistic activity of hydroxylated polybrominated biphenyl (OH-BB80) toward thyroid receptor #2019 , 697, 134040	5
498	High level of dietary olive oil decreased growth, increased liver lipid deposition and induced inflammation by activating the p38 MAPK and JNK pathways in large yellow croaker (Larimichthys crocea). 2019 , 94, 157-165	26
497	Analysis on the Long-Term Deflection in Prestressed Concrete Continuous Rigid Frame Box Girder Bridge. 2019 ,	
496	DUSP8 phosphatase: structure, functions, expression regulation and the role in human diseases. 2019 , 9, 70	5
495	Linderane protects pancreatic E ells from streptozotocin (STZ)-induced oxidative damage. 2019 , 233, 116732	6
494	An Experimental Brackish Aquaponic System Using Juvenile Gilthead Sea Bream (Sparus aurata) and Rock Samphire (Crithmum maritimum). 2019 , 11, 4820	5
493	Conformational restriction of a type II FMS inhibitor leading to discovery of 5-methyl(2-aryl-1-benzo[d]imidazo-5-yl)isoxazole-4-carboxamide analogues as selective FLT3 inhibitors. 2019 , 34, 1716-1721	5
492	MKK7, the essential regulator of JNK signaling involved in cancer cell survival: a newly emerging anticancer therapeutic target. 2019 , 11, 1758835919875574	20
491	Biological Effects of Shikonin in Human Gingival Fibroblasts via ERK 1/2 Signaling Pathway. 2019 , 24,	14
490	Selenium and selenoproteins: from endothelial cytoprotection to clinical outcomes. 2019 , 208, 85-104	21
489	Mining the Na1.7 interactome: Opportunities for chronic pain therapeutics. 2019 , 163, 9-20	12
488	MEK2 Negatively Regulates Lipopolysaccharide-Mediated IL-1₽roduction through HIF-1∃ Expression. 2019 , 202, 1815-1825	5
487	Regulation of RhoB Gene Expression during Tumorigenesis and Aging Process and Its Potential Applications in These Processes. 2019 , 11,	7
486	TLR1/TLR2 signaling blocks the suppression of monocytic myeloid-derived suppressor cell by promoting its differentiation into M1-type macrophage. 2019 , 112, 266-273	14
485	Regulated Phosphosignaling Associated with Breast Cancer Subtypes and Druggability. 2019 , 18, 1630-1650	5

484	Curcumin: a modulator of inflammatory signaling pathways in the immune system. 2019 , 27, 885-900	51
483	Genome-wide DNA methylation profiling of human diabetic peripheral neuropathy in subjects with type 2 diabetes mellitus. 2019 , 14, 766-779	15
482	ERK Pathway in Activated, Myofibroblast-Like, Hepatic Stellate Cells: A Critical Signaling Crossroad Sustaining Liver Fibrosis. 2019 , 20,	38
481	Anti-EPI/EPI complexes induce platelet activation and promote thrombosis via p38MAPK: a pathway to targeted therapies. 2019 , 13, 680-689	4
480	Pharmacology of ME-344, a novel cytotoxic isoflavone. 2019 , 142, 187-207	12
479	Role of Low-Affinity Calcium System Member Fig1 Homologous Proteins in Conidiation and Trap-Formation of Nematode-trapping Fungus Arthrobotrys oligospora. 2019 , 9, 4440	10
478	Luteolin suppresses tumor proliferation through inducing apoptosis and autophagy via MAPK activation in glioma. 2019 , 12, 2383-2396	30
477	Genome Association Study for Visual Scores in Nellore Cattle Measured at Weaning. 2019 , 20, 150	4
476	The role of inherited genetic variants in colorectal polyposis syndromes. 2019 , 103, 183-217	6
475	Activation of p53-Mediated Apoptosis Pathway in HSC3 Cancer Cell Irradiated by Atmospheric DBD Oxygen Plasma. 2019 , 47, 1093-1099	11
474	Group A -Mediated Host Cell Signaling. 2019 , 7,	2
473	RNA-seq based elucidation of mechanism underlying Ganoderma atrum polysaccharide induced immune activation of murine myeloid-derived dendritic cells. 2019 , 55, 104-116	16
472	Anti-Inflammatory Activity of the Active Compounds of Sanguisorbae Radix In Macrophages and in Vivo Toxicity Evaluation in Zebrafish. 2019 , 6, 68	0
471	Inhibitory effect of semi-purified extracts obtained from Potato Tree (Solanum erianthum) against protein kinase and phosphatases 2019 , 1358, 012021	1
470	Group A Streptococcus-Mediated Host Cell Signaling. 2019 , 125-147	
469	Demystifying Circalunar and Diel Rhythmicity in Acropora digitifera under Constant Dim Light. 2019 , 22, 477-488	7
468	Potential Anti-inflammatory Effects of Hesperidin from the Genus Citrus. 2018, 25, 4929-4945	57
467	MKP-1 reduces Atgeneration and alleviates cognitive impairments in Alzheimer's disease models. 2019 , 4, 58	31

(2020-2019)

466	PDEInhibition impedes the proliferation and survival of human colorectal cancer cell lines harboring oncogenic KRas. 2019 , 144, 767-776	12
465	R-Fluoxetine Increases Melanin Synthesis Through a 5-HT1A/2A Receptor and p38 MAPK Signaling Pathways. 2018 , 20,	12
464	Linc00161 regulated the drug resistance of ovarian cancer by sponging microRNA-128 and modulating MAPK1. 2019 , 58, 577-587	30
463	Characterization and functional analysis of grouper (Epinephelus coioides) MEK1 and MEK2. 2019 , 84, 1090-1097	3
462	Estrogen Receptor and Breast Cancer. 2019 ,	3
461	Study on Bombykol Receptor Self-Assembly and Universality of G Protein Cellular Signal Amplification System. 2019 , 4, 257-264	9
460	Identification of mapk gene family in Lateolabrax maculatus and their expression profiles in response to hypoxia and salinity challenges. 2019 , 684, 20-29	24
459	Molecular Mechanisms of Endocrine Resistance. 2019 , 265-307	4
458	Brain-Derived Neurotrophic Factor (BDNF): Novel Insights into Regulation and Genetic Variation. 2019 , 25, 434-454	54
457	A Novel Pulse Damper for Endothelial Cell Flow Bioreactors. 2019 , 10, 95-111	
456	Toll like receptor induces Ig synthesis in Catla catla by activating MAPK and NF- B signalling. 2019 , 105, 62-75	2
455	Analysis of miRNA Targets in Correlation to Neurodevelopment and Diagnosis of Autism Spectrum Disorder (ASD). 2020 , 371-377	1
454	Intracellular Signaling. 2020 , 24-46.e12	
453	Accelerated Marfan syndrome model recapitulates established signaling pathways. 2020 , 159, 1719-1726	4
452	Apoptotic effect of fluoxetine through the endoplasmic reticulum stress pathway in the human gastric cancer cell line AGS. 2020 , 393, 537-549	7
451	EGR1 upregulation following Venezuelan equine encephalitis virus infection is regulated by ERK and PERK pathways contributing to cell death. 2020 , 539, 121-128	10
450	Diving into divergence: Differentiation in swimming performances, physiology and gene expression between locally-adapted sympatric cichlid fishes. 2020 , 29, 1219-1234	4
449	Pyroptotic and apoptotic cell death in iNOS and nNOS overexpressing K562 cells: A mechanistic insight. 2020 , 176, 113779	5

448	2-(5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-1H-pyrazol-3-yl)-N-(2-hydroxyethyl)-2-oxoacetamide (CDMPO) has anti-inflammatory properties in microglial cells and prevents neuronal and behavioral deficits in MPTP mouse model of Parkinson's disease. 2020 , 166, 107928	1
447	Genome and population sequencing of a chromosome-level genome assembly of the Chinese tapertail anchovy (Coilia nasus) provides novel insights into migratory adaptation. 2020 , 9,	18
446	Identification and characterization of c-raf from orange-spotted grouper (Epinephelus coioides). 2020 , 96, 311-318	O
445	Overcoming Resistance to Therapies Targeting the MAPK Pathway in BRAF-Mutated Tumours. 2020 , 2020, 1079827	7
444	Proteomic analysis reveals the molecular mechanism of Hippophae rhamnoides polysaccharide intervention in LPS-induced inflammation of IPEC-J2 cells in piglets. 2020 , 164, 3294-3304	5
443	SARS-CoV-2 transcriptome analysis and molecular cataloguing of immunodominant epitopes for multi-epitope based vaccine design. 2020 , 112, 5044-5054	3
442	Depletion of cyclic-GMP levels and inhibition of cGMP-dependent protein kinase activate p21 /p27 pathways and lead to renal fibrosis and dysfunction. <i>FASEB Journal</i> , 2020 , 34, 11925-11943	6
441	Systems Toxicology Approach for Testing Chemical Cardiotoxicity in Larval Zebrafish. 2020 , 33, 2550-2564	10
440	New Aspects of Invasive Growth Regulation Identified by Functional Profiling of MAPK Pathway Targets in. 2020 , 216, 95-116	5
439	C-Src is Activated by the EGF Receptor in a Pathway that Mediates JNK and ERK Activation by Gonadotropin-Releasing Hormone in COS7 Cells. 2020 , 21,	3
438	Mechanisms of Herbal Nephroprotection in diabetes mellitus. 2020 , 2020, 5710513	11
437	Targeting kinases with thymoquinone: a molecular approach to cancer therapeutics. 2020 , 25, 2294-2306	12
436	12-Deacetyl-12-epi-Scalaradial, a Scalarane Sesterterpenoid from a Marine Sponge Hippospongia sp., Induces HeLa Cells Apoptosis via MAPK/ERK Pathway and Modulates Nuclear Receptor Nur77. 2020 , 18,	6
435	Efficient Non-Epigenetic Activation of HIV Latency through the T-Cell Receptor Signalosome. 2020 , 12,	2
434	CD146, from a melanoma cell adhesion molecule to a signaling receptor. 2020 , 5, 148	31
433	Nuclear P38: Roles in Physiological and Pathological Processes and Regulation of Nuclear Translocation. 2020 , 21,	14
432	Djmek is involved in planarian regeneration by regulation of cell proliferation and apoptosis. 2020 , 532, 355-361	3
431	Lipophilic Extractand Tanshinone IIA Derived from Attenuate Uric Acid Nephropathy through Suppressing Oxidative Stress-Activated MAPK Pathways. 2020 , 48, 1455-1473	8

430	Differential Sex-Dependent Regulation of the Alveolar Macrophage miRNome of SP-A2 and co-ex (SP-A1/SP-A2) and Sex Differences Attenuation after 18 h of Ozone Exposure. 2020 , 9,	6
429	Decreased concentrations of intracellular signaling proteins in colon cancer patients with BRAF mutations. 2020 , 10, 20113	3
428	Prolidase Stimulates Proliferation and Migration through Activation of the PI3K/Akt/mTOR Signaling Pathway in Human Keratinocytes. 2020 , 21,	14
427	Involvement of MEK5/ERK5 signaling pathway in manganese-induced cell injury in dopaminergic MN9D cells. 2020 , 61, 126546	4
426	An overview of biochemically characterized drug targets in metabolic pathways of Leishmania parasite. 2020 , 119, 2025-2037	13
425	Mechanical Stress Regulates Epithelial Tissue Integrity and Stiffness through the FGFR/Erk2 Signaling Pathway during Embryogenesis. 2020 , 30, 3875-3888.e3	11
424	Attenuation of allergen-mediated mast cell activation by rosemary extract (Rosmarinus officinalis L.). 2020 , 107, 843-857	6
423	Differential methylation and expression of genes in the hypoxia-inducible factor 1 signaling pathway are associated with paclitaxel-induced peripheral neuropathy in breast cancer survivors and with preclinical models of chemotherapy-induced neuropathic pain. 2020 , 16, 1744806920936502	8
422	KRAS as a druggable target in NSCLC: Rising like a phoenix after decades of development failures. 2020 , 85, 101978	45
421	Plasma Exosome-derived MicroRNAs as Novel Biomarkers of Traumatic Brain Injury in Rats. 2020 , 17, 437-448	14
420	JAK-STAT-dependent regulation of scavenger receptors in LPS-activated murine macrophages. 2020 , 871, 172940	12
419	Regulation of Runx2 by post-translational modifications in osteoblast differentiation. 2020 , 245, 117389	31
418	Antiprolactinoma Effect of Hordenine by Inhibiting MAPK Signaling Pathway Activation in Rats. 2020 , 2020, 3107290	3
417	Understanding MAPK Signaling Pathways in Apoptosis. 2020 , 21,	185
416	Effects of Mitofusin2 on astrocytes proliferation in vitro induced by scratch injury. 2020 , 729, 134969	1
415	Dietary intake of Lycium ruthenicum Murray ethanol extract inhibits colonic inflammation in dextran sulfate sodium-induced murine experimental colitis. 2020 , 11, 2924-2937	10
414	Fish c-Jun N-Terminal Kinase (JNK) Pathway Is Involved in Bacterial MDP-Induced Intestinal Inflammation. 2020 , 11, 459	4
413	Bisabolol suppresses the inflammatory response and ECM catabolism in advanced glycation end products-treated chondrocytes and attenuates murine osteoarthritis. 2020 , 84, 106530	6

412	Disentangling Pro-mitotic Signaling during Cell Cycle Progression using Time-Resolved Single-Cell Imaging. 2020 , 31, 107514	9
411	Presynaptic long-term potentiation requires extracellular signal-regulated kinases in the anterior cingulate cortex. 2020 , 16, 1744806920917245	
410	Carnosol suppresses RANKL-induced osteoclastogenesis and attenuates titanium particles-induced osteolysis. 2021 , 236, 1950-1966	6
409	Enzymes as Active Matter. 2021 , 12, 177-200	14
408	Nanoscale Zeolitic Imidazolate Framework-8 Activator of Canonical MAPK Signaling for Bone Repair. 2021 , 13, 97-111	17
407	Growing Up in a Changing World: Environmental Regulation of Development in Insects. 2021 , 66, 81-99	9
406	Integrated molecular characterisation of the MAPK pathways in human cancers reveals pharmacologically vulnerable mutations and gene dependencies. 2021 , 4, 9	5
405	Antioxidant-rich natural fruit and vegetable products and human health. 2021 , 24, 41-67	32
404	Chemoproteomic profiling of kinases in live cells using electrophilic sulfonyl triazole probes. 2021 , 12, 3295-3307	9
403	The p38-MK2 Signaling Axis as a Critical Link Between Inflammation and Synaptic Transmission. 2021 , 9, 635636	3
402	Understanding Abnormal c-JNK/p38MAPK Signaling in Amyotrophic Lateral Sclerosis: Potential Drug Targets and Influences on Neurological Disorders. 2021 , 20, 417-429	6
401	Biological halogen bonds in protein-ligand complexes: a combined QTAIM and NCIPlot study in four representative cases. 2021 , 19, 6858-6864	2
400	Shikonin inhibits proliferation of melanoma cells by MAPK pathway-mediated induction of apoptosis. 2021 , 41,	8
399	Encyclopedia of Molecular Pharmacology. 2021 , 1-13	
398	Polysaccharides from O.F. Mler inhibit cell proliferation activating MAPK signaling in A549 and H1650 cells. 2021 , 12, 6915-6924	1
397	The ERK mitogen-activated protein kinase signaling network: the final frontier in RAS signal transduction. 2021 , 49, 253-267	11
396	Homeodomain-Interacting Protein Kinase (Hipk) Phosphorylates the Hippo/Warts Signalling Effector Yorkie. 2021 , 22,	1
395	The Anticancer Effect of Natural Plant Alkaloid Isoquinolines. 2021 , 22,	17

394	Light Signaling Regulates Aspergillus niger Biofilm Formation by Affecting Melanin and Extracellular Polysaccharide Biosynthesis. 2021 , 12,	2
393	Low-Density Lipoprotein Receptor-Related Protein 1 (LRP1) as a Novel Regulator of Early Astroglial Differentiation. 2021 , 15, 642521	2
392	Positive Promoting Effects of Smilax China Flower Absolute on the Wound Healing/Skin Barrier Repair-Related Responses of HaCaT Human Skin Keratinocytes. 2021 , 18, e2001051	0
391	Comparative analyses of hypothalamus transcriptomes reveal fertility-, growth-, and immune-related genes and signal pathways in different ploidy cyprinid fish. 2021 , 113, 595-605	6
390	Non-Syndromic Intellectual Disability and Its Pathways: A Long Noncoding RNA Perspective. 2021 , 7,	2
389	Phosphorylation of Serine 114 of the transcription factor ABSCISIC ACID INSENSITIVE 4 is essential for activity. 2021 , 305, 110847	2
388	Anti-inflammatory chemoprevention attenuates the phenotype in a mouse model of esophageal adenocarcinoma. 2021 , 42, 1068-1078	O
387	Inhibition of the Receptor for Advanced Glycation End Products Enhances the Cytotoxic Effect of Gemcitabine in Murine Pancreatic Tumors. 2021 , 11,	1
386	ERK1/2: An Integrator of Signals That Alters Cardiac Homeostasis and Growth. 2021, 10,	3
385	Unraveling the Big Sleep: Molecular Aspects of Stem Cell Dormancy and Hibernation. 2021 , 12, 624950	3
384	Curcumin: A Dietary Phytochemical for Targeting the Phenotype and Function of Dendritic Cells. 2021 , 28, 1549-1564	6
383	Extract Activates Growth and Survival Signal Transduction Networks to Stimulate Proliferation of Human Keratinocyte. 2021 , 10,	2
382	PtP38 May Increase the Immune Ability of Portunus trituberculatus Stimulated by LPS Imitating a Gram-Negative Bacterial Infection. 2021 , 8,	
381	Research Progress on Oxidative Stress and Its Nutritional Regulation Strategies in Pigs. 2021 , 11,	10
380	Genetic variant in SPDL1 reveals novel mechanism linking pulmonary fibrosis risk and cancer protection.	3
379	KRAS G12C Mutations in NSCLC: From Target to Resistance. 2021 , 13,	8
378	Uric acid can enhance MAPK pathway-mediated proliferation in rat primary vascular smooth muscle cells via controlling of mitochondria and caspase-dependent cell death. 2021 , 1-9	О
377	Anti-osteoporotic effects of alisol C 23-acetate via osteoclastogenesis inhibition. 2021 , 137, 111321	O

376 Sex differences and estradiol effects in MAPK and Akt cell signalling across subregions of the hippocampus.

375	RAF-MEK-ERK pathway in cancer evolution and treatment. 2021 ,	7
374	A unique understanding of traditional medicine of pomegranate, Punica granatum L. and its current research status. 2021 , 271, 113877	14
373	Targeting protein phosphatase PP2A for cancer therapy: development of allosteric pharmaceutical agents. 2021 , 135, 1545-1556	2
372	Mitotic HOOK3 phosphorylation by ERK1c drives microtubule-dependent Golgi destabilization and fragmentation. 2021 , 24, 102670	3
371	Ubenimex Suppresses the Ability of Migration and Invasion in Gastric Cancer Cells by Alleviating the Activity of the CD13/NAB1/MAPK Pathway. 2021 , 13, 4483-4495	1
370	New bioactive 5-arylcarboximidamidopyrazolo[3,4-c]pyridines: Synthesis, cytotoxic activity, mechanistic investigation and structure-activity relationships. 2021 , 218, 113387	6
369	Influence of pretreatment of insulin on the phosphorylation of extracellular receptor kinase by gonadotropin-releasing hormone and gonadotropins in cultured human granulosa cells. 2021 , 262, 113-117	Ο
368	Experone (CYP) down-regulates NF-B and MAPKs signaling, attenuating inflammation and extracellular matrix degradation in chondrocytes, to ameliorate osteoarthritis in mice. 2021 , 13, 17690-17706	1
367	circZFR regulates thyroid cancer progression by the miR-16/MAPK1 axis. 2021 , 36, 2236-2244	1
366	Inhibition of testosterone synthesis induced by oral TiO NPs is associated with ROS-MAPK(ERK1/2)-StAR signaling pathway in SD rat. 2021 , 10, 937-946	1
365	Role of the CTRP family in tumor development and progression. 2021 , 22, 723	2
364	Pathogenic roles and therapeutic potential of the CCL8-CCR8 axis in a murine model of IgG4-related sialadenitis. 2021 , 23, 214	1
363	Single Dose of N-Acetylcysteine in Local Anesthesia Increases Expression of HIF1∄MAPK1, TGF ® and Growth Factors in Rat Wound Healing. 2021 , 22,	1
362	Sex differences and estradiol effects in MAPK and Akt cell signalling across subregions of the hippocampus. 2021 ,	2
361	Chemical Composition of Miscanthus sinensis var. purpurascens Flower Absolute and Its Beneficial Effects on Skin Wound Healing and Melanogenesis-Related Cell Activities. 2021 , 18, e2100383	Ο
360	Covalent inhibitor targets KRasG12C: A new paradigm for drugging the undruggable and challenges ahead. 2021 ,	1
359	Enhanced VEGF-A expression and mediated angiogenic differentiation in human gingival fibroblasts by stimulating with TNF-In vitro. 2021 ,	O

358	Altered expression of microRNAs in the rat diaphragm in a model of ventilator-induced diaphragm dysfunction after controlled mechanical ventilation. 2021 , 22, 671	O
357	The linkage of cell cycle and DNA replication with growth difference in female Chinese tongue sole (Cynoglossus semilaevis): Analysis from transcriptomic study and WGCNA. 2021 , 39, 100833	Ο
356	Platelet-Rich Plasma Promotes the Proliferation of Human Keratinocytes via a Progression of the Cell Cycle. A Role of Prolidase. 2021 , 22,	4
355	Intracellular Pathways Involved in Bone Regeneration Triggered by Recombinant Silk-silica Chimeras. 2018 , 28, 1702570	26
354	The Roles of Map Kinases in Controling Cancer Metastasis. 2002 , 35-50	3
353	Cell Cycle Activation in Neurons. 2005 , 1-21	1
352	Cell survival signaling during apoptosis: implications in drug resistance and anti-cancer therapeutic development. 2005 , 63, 115-45	1
351	CGRP: a Multifunctional Neuropeptide. 2006 , 391-426	10
350	Differentiation and De-DifferentiationNeuronal Cell-Cycle Regulation During Development and Age-Related Neurodegenerative Disorders. 2008 , 157-213	5
349	Endocytosis of Receptor Tyrosine Kinases. 2006 , 101-118	1
348	Involvement of Growth Factor Receptor and Nonreceptor Protein Tyrosine Kinases in Endothelin-1 and Angiotensin II-Induced Signaling Pathways in the Cardiovascular System. 2011 , 315-333	1
347	The MAP Kinases and Their Role in Mast Cells and Basophils. 1999 , 247-273	2
346	6-Hydroxydopamine Lesioning of Dopamine Neurons in Neonatal and Adult Rats Induces Age-Dependent Consequences. 2014 , 133-198	4
345	Hyperglycemia-induced protein kinase signaling pathways in vascular smooth muscle cells: implications in the pathogenesis of vascular dysfunction in diabetes. 2001 , 498, 311-8	8
344	Stimulation of Mitogen-Activated Protein Kinases ERK-1 and ERK-2 by H2O2 in Vascular Smooth Muscle Cells. 2000 , 197-206	3
343	Involvement of protein kinase C, p38 MAP kinase and ERK in arachidonic acid-stimulated superoxide production in human neutrophils. 1999 , 469, 365-70	9
342	Stress-responsive signal transduction: emerging concepts and biological significance. 1998 , 85-117	1
341	Vitamin K metabolism. 1998 , 30, 455-88	12

340	Regulation of MAP-kinase activation by 8-iso-prostaglandin F2a in cultured rat aortic smooth muscle cells. 1997 , 433, 193-6	4
339	Activation of MAP kinases, cPLA2 and reactive oxygen species formation by EGF and calcium mobilizing agonists in a human keratinocyte cell line. 1997 , 407, 289-93	5
338	Calcium and Neuronal Development and Growth. 1998, 239-265	2
337	Posttranslational Mechanisms Leading to Mammalian Gene Activation in Response to Genotoxic Stress. 1998 , 263-298	3
336	Neuroprotective Strategies Based on Targeting of Postreceptor Signaling Events. 1998 , 301-335	8
335	Bioluminescent imaging of MAPK function with intein-mediated reporter gene assay. 2009 , 574, 185-92	8
334	Cardiac and Vascular Receptors and Signal Transduction. 2009 , 191-218	1
333	Localization and trafficking of fluorescently tagged ERK1 and ERK2. 2010 , 661, 287-301	5
332	Analysis of mitogen-activated protein kinase activity in yeast. 2010 , 661, 387-99	3
331	Role of HSP70 in Plasticity and Memory. 2019 , 53-67	2
330	Muscarinic receptor-晦drenoceptor cross-talk in airways smooth muscle. 2001 , 121-157	2
329	Pathogen-induced MAP kinases in tobacco. 2000 , 27, 65-84	38
328	Pathway Logic. 2008 , 21-53	26
327	Oxidative Stress to Renal Tubular Epithelial Cells 🖪 Common Pathway in Renal Pathologies. 2014 , 2605-2624	2
326	Regulation/modulation of sensory neuron sodium channels. 2014 , 221, 111-35	31
325	Dabrafenib. 2014 , 201, 227-40	4
324	Neurofibromatosen. 2001 , 87-234	2
323	Metabolic targets of cancer chemoprevention: interruption of tumor development by inhibitors of arachidonic acid metabolism. 1999 , 151, 45-67	28

322	Trophic Roles of Purines and Pyrimidines. 2001 , 305-338	12
321	Signal Transduction Pathways Regulating Arachidonic Acid Metabolite Generation Following Fc R I Aggregation. 1997 , 181-208	2
320	Effect of Bacterial Infection on Stem Cell Pattern in Porifera. 2009 , 309-336	1
319	Cartilage destruction by matrix degradation products. 2006 , 16, 197-205	59
318	Myocardial Cellular Development and Morphogenesis. 1997 , 33-80	3
317	Perspectives on the Regulation of Secretion from Human Basophils and Mast Cells. 2000 , 195-207	2
316	Rac, Superoxide, and Signal Transduction. 2000 , 47-79	1
315	Redox Regulation of Ischemic Adaptation. 2000 , 491-516	1
314	Chemokine Receptor Signal Transduction. 2002 , 99-117	1
313	Multiple stressor responses are regulated by sirtuins in Mytilus congeners. 2020 , 246, 110719	4
312	Decrease in immune function and the role of mitogen-activated protein kinase (MAPK) overactivation in apoptosis during T lymphocytes activation induced by zearalenone, deoxynivalenol, and their combinations. 2020 , 255, 126999	12
311	Ganglioside GM3 activates ERKs in human lymphocytic cells. 2002 , 43, 971-978	13
310	Lysophosphatidylcholine induces arachidonic acid release and calcium overload in cardiac myoblastic H9c2 cells. 1999 , 40, 1818-1826	22
309	Critical role of p42/44MAPK activation in anisomycin and hepatocyte growth factor-induced LDL receptor expression: activation of Raf-1/MEK-1/p42/44MAPK cascade alone is sufficient to induce LDL receptor expression. 1999 , 40, 1911-1919	33
308	Activation of pH-Sensing Receptor OGR1 (GPR68) Induces ER Stress Via the IRE1例K Pathway in an Intestinal Epithelial Cell Model. 2020 , 10, 1438	21
307	The Raf/MEK/ERK signal transduction cascade as a target for chemotherapeutic intervention in leukemia.	2
306	Loss of CAR promotes migration and proliferation of HaCaT cells, and accelerates wound healing in rats via Src-p38 MAPK pathway. 2016 , 6, 19735	18
305	A protein kinase C-, Ras-, and RSK2-dependent signal transduction pathway activates the cAMP-responsive element-binding protein transcription factor following T cell receptor engagement. 1998 , 273, 22841-7	54

304	The isolation and characterization of nrc-1 and nrc-2, two genes encoding protein kinases that control growth and development in Neurospora crassa. 1998 , 149, 117-30	64
303	A misexpression screen identifies genes that can modulate RAS1 pathway signaling in Drosophila melanogaster. 2000 , 156, 1219-30	80
302	Inhibition of the ER-kinase cascade by PD98059 and UO126 counteracts ischemic preconditioning in pig myocardium. 2000 , 36, 218-29	88
301	DUAL EFFECTS OF OUABAIN ON THE REGULATION OF PROLIFERATION AND APOPTOSIS IN HUMAN PROSTATIC SMOOTH MUSCLE CELLS. 2001 , 347-353	4
300	A PI3K inhibitor-induced growth inhibition of cancer cells is linked to MEK-ERK pathway. 2021 , 32, 517-525	1
299	The role of MKK1/2 kinase activity in human cytomegalovirus infection. 2001 , 82, 493-497	72
298	Regulation of Mitogen-Activated Protein Kinase Signaling Networks by G Protein-Coupled Receptors. 2000 , 2000, re1-re1	19
297	Salmonella typhimurium and lipopolysaccharide stimulate extracellularly regulated kinase activation in macrophages by a mechanism involving phosphatidylinositol 3-kinase and phospholipase D as novel intermediates. 1999 , 67, 1011-7	56
296	Association of ERK2 mitogen-activated protein kinase with human immunodeficiency virus particles. 1997 , 71, 4832-7	58
295	Polyomavirus large T antigen induces alterations in cytoplasmic signalling pathways involving Shc activation. 1999 , 73, 1427-37	10
294	Regulation of human immunodeficiency virus type 1 infectivity by the ERK mitogen-activated protein kinase signaling pathway. 1999 , 73, 3460-6	124
293	Kinase cascades regulating entry into apoptosis. 1997 , 61, 33-46	55
292	Signalling in the yeasts: an informational cascade with links to the filamentous fungi. 1998 , 62, 249-74	228
291	Acylation of Escherichia coli hemolysin: a unique protein lipidation mechanism underlying toxin function. 1998 , 62, 309-33	151
2 90	Cdc42: An essential Rho-type GTPase controlling eukaryotic cell polarity. 1999 , 63, 54-105	414
289	Complement C5b-9 induces cyclooxygenase-2 gene transcription in glomerular epithelial cells. 2001 , 281, F841-50	10
288	Induction of mitogen-activated protein kinase phosphatase-1 during acute hypertension. 1997 , 30, 106-11	22
287	Stimulation of the stress-activated mitogen-activated protein kinase subfamilies in perfused heart. p38/RK mitogen-activated protein kinases and c-Jun N-terminal kinases are activated by ischemia/reperfusion. 1996 , 79, 162-73	389

286	Insulin signaling and its regulation of system A amino acid uptake in cultured rat vascular smooth muscle cells. 1996 , 79, 1167-76	28
285	Diverse effects of heparin on mitogen-activated protein kinase-dependent signal transduction in vascular smooth muscle cells. 1997 , 81, 17-23	41
284	Chronic immune activation associated with intestinal helminth infections results in impaired signal transduction and anergy. 2000 , 106, 1053-60	153
283	A role for mitogen-activated protein kinase activation by integrins in the pathogenesis of psoriasis. 2001 , 108, 527-36	128
282	c-Jun N-terminal kinase is required for metalloproteinase expression and joint destruction in inflammatory arthritis. 2001 , 108, 73-81	598
281	Glucose or diabetes activates p38 mitogen-activated protein kinase via different pathways. 1999 , 103, 185-95	329
2 80	Butyrate-induced erythroid differentiation of human K562 leukemia cells involves inhibition of ERK and activation of p38 MAP kinase pathways. 2000 , 95, 2391-2396	7
279	The human basophil: a new appreciation of its role in immune responses. 2000 , 96, 4028-4038	1
278	JNK and p38 are activated by erythropoietin (EPO) but are not induced in apoptosis following EPO withdrawal in EPO-dependent HCD57 cells. 2000 , 96, 933-940	4
277	Redox Modulation in Tumor Initiation, Promotion, and Progression. 2003,	1
276	Approaches to the Toxicological Testing of Particles. 2006 , 299-316	1
275	MAP kinase in situ activation atlas during Drosophila embryogenesis. 1997 , 124, 3535-3541	252
274	The Drosophila EGF receptor controls the formation and specification of neuroblasts along the dorsal-ventral axis of the Drosophila embryo. 1998 , 125, 3301-3312	84
273	Dissecting the roles of the Drosophila EGF receptor in eye development and MAP kinase activation. 1998 , 125, 3875-3885	137
272	Heartbroken is a specific downstream mediator of FGF receptor signalling in Drosophila. 1998 , 125, 4379-438	9106
271	Heparan sulfate proteoglycans are essential for FGF receptor signaling during Drosophila embryonic development. 1999 , 126, 3715-3723	263
270	Hindgut visceral mesoderm requires an ectodermal template for normal development in Drosophila. 2001 , 128, 233-242	33
269	Evidence for MAP kinase activation during mitotic division. 1998 , 111, 2519-2527	30

268	Distinct signal transduction pathways are utilized during the tube formation and survival phases of in vitro angiogenesis. 1998 , 111, 3621-3631	194
267	Src induces morphological changes in A431 cells that resemble epidermal differentiation through an SH3- and Ras-independent pathway. 1999 , 112, 2913-2924	6
266	PDGF (alpha)-receptor is unresponsive to PDGF-AA in aortic smooth muscle cells from the NG2 knockout mouse. 1999 , 112, 905-915	108
265	Skh1, the MEK component of the mkh1 signaling pathway in Schizosaccharomyces pombe. 2000 , 113, 153-160	37
264	Low-energy laser irradiation promotes the survival and cell cycle entry of skeletal muscle satellite cells. 2002 , 115, 1461-1469	128
263	Hyperosmotic and thermal stresses activate p38-MAPK in the perfused amphibian heart. 2002 , 205, 443-454	33
262	Association of Topoisomerase II (TOP2A) and Dual-Specificity Phosphatase 6 (DUSP6) Single Nucleotide Polymorphisms with Radiation Treatment Response and Prognosis of Lung Cancer in Han Chinese. 2017 , 23, 984-993	12
261	Hypertension accelerates diabetic nephropathy in Wistar fatty rats, a model of type 2 diabetes mellitus, via mitogen-activated protein kinase cascades and transforming growth factor-beta1. 2003 , 26, 339-47	18
260	Proteomics-based systems biology modeling of bovine germinal vesicle stage oocyte and cumulus cell interaction. 2010 , 5, e11240	33
259	New algorithm to determine true colocalization in combination with image restoration and time-lapse confocal microscopy to MAP kinases in mitochondria. 2011 , 6, e19031	23
258	Retroactive signaling in short signaling pathways. 2012 , 7, e40806	5
257	JNK pathway activation is controlled by Tao/TAOK3 to modulate ethanol sensitivity. 2012 , 7, e50594	24
256	Random parameter sampling of a generic three-tier MAPK cascade model reveals major factors affecting its versatile dynamics. 2013 , 8, e54441	6
255	Natriuretic peptide receptor-C agonist attenuates the expression of cell cycle proteins and proliferation of vascular smooth muscle cells from spontaneously hypertensive rats: role of Gi proteins and MAPkinase/PI3kinase signaling. 2013 , 8, e76183	21
254	Smooth muscle 🗟ctin (Acta2) and myofibroblast function during hepatic wound healing. 2013 , 8, e77166	80
253	ERK phosphorylation regulates sleep and plasticity in Drosophila. 2013 , 8, e81554	25
252	A novel berbamine derivative inhibits cell viability and induces apoptosis in cancer stem-like cells of human glioblastoma, via up-regulation of miRNA-4284 and JNK/AP-1 signaling. 2014 , 9, e94443	40
251	Uridine 5'-triphosphate promotes in vitro Schwannoma cell migration through matrix metalloproteinase-2 activation. 2014 , 9, e98998	17

250	Transcriptome analysis of the Capra hircus ovary. 2015 , 10, e0121586	12
249	The Effect of Quercetin on the Osteogenesic Differentiation and Angiogenic Factor Expression of Bone Marrow-Derived Mesenchymal Stem Cells. 2015 , 10, e0129605	68
248	PD98059 Influences Immune Factors and Enhances Opioid Analgesia in Model of Neuropathy. 2015 , 10, e0138583	31
247	Multi-Compartmentalisation in the MAPK Signalling Pathway Contributes to the Emergence of Oscillatory Behaviour and to Ultrasensitivity. 2016 , 11, e0156139	11
246	MicroRNA Profiling in the Medial and Lateral Habenula of Rats Exposed to the Learned Helplessness Paradigm: Candidate Biomarkers for Susceptibility and Resilience to Inescapable Shock. 2016 , 11, e0160318	4
245	Fate of tenogenic differentiation potential of human bone marrow stromal cells by uniaxial stretching affected by stretch-activated calcium channel agonist gadolinium. 2017 , 12, e0178117	11
244	Health Effects of Censored Elongated Mineral Particles: A Critical Review. 2019 , 192-239	4
243	Anti-inflammatory Effects of Flavokavain C from Kava (Piper methysticum) Root in the LPS-induced Macrophages. 2016 , 42, 311-320	1
242	Vascular smooth muscle cell proliferation is effectively suppressed by the non-specific growth factor inhibitor suramin. 2001 , 42, 221-33	6
241	Differential activation of ERK 1/2 and JNK in normal human fibroblast-like cells in response to UVC radiation under different oxygen tensions. 2000 , 72, 334-9	13
240	Extracellular signal-regulated kinase mediates stimulation of TGF-beta1 and matrix by high glucose in mesangial cells. 2000 , 11, 2222-2230	100
239	Differential activation of mitogen-activated protein kinases in experimental mesangioproliferative glomerulonephritis. 2000 , 11, 232-240	49
238	Proliferation of Peripheral Blood-derived Endothelial Progenitor Cells from Stable Angina Subjects. 2014 , 6, 91	2
237	Targeting mixed lineage kinases in ER-positive breast cancer cells leads to G2/M cell cycle arrest and apoptosis. 2013 , 4, 1158-71	16
236	Role of high expression levels of STK39 in the growth, migration and invasion of non-small cell type lung cancer cells. 2016 , 7, 61366-61377	24
235	Sequential activation of Elk-1/Egr-1/GADD45&by arsenic. 2014 , 5, 3862-70	13
234	MEF2 signaling and human diseases. 2017 , 8, 112152-112165	36
233	Frequent amplification of AIB1, a critical oncogene modulating major signaling pathways, is associated with poor survival in gastric cancer. 2015 , 6, 14344-59	20

232	Reactive oxygen species a double-edged sword for mesothelioma. 2015 , 6, 16848-65	54
231	KLF4 downregulates hTERT expression and telomerase activity to inhibit lung carcinoma growth. 2016 , 7, 52870-52887	24
230	The Role of microRNAs Identified in the Amniotic Fluid. 2020 , 9, 8-16	5
229	MicroRNA-152 suppresses cell proliferation and tumor growth of bladder cancer by targeting KLF5 and MKK7. 2019 , 1, 10-16	8
228	Heat-induced Signal Transduction Pathways Leading to Cell Death and Cell Survival in Cancer Cells. 2009 , 25, 1-11	1
227	The VR1-Positive Primary Afferent-Mediated Expression of pERK in the Lumbosacral Neurons in Response to Mechanical and Chemical Stimulation of the Urinary Bladder in Rats. 2007 , 42, 462-9	3
226	Neurochemical Characterization of the TRPV1-Positive Nociceptive Primary Afferents Innervating Skeletal Muscles in the Rats. 2008 , 43, 97-104	7
225	The multifaceted role of curcumin in cancer prevention and treatment. 2015 , 20, 2728-69	283
224	Effects of Vitexin from Mung Bean on 3T3-L1 Adipocyte Differentiation and Regulation According to Adipocytokine Secretion. 2012 , 41, 1079-1085	6
223	Ornithine decarboxylase, mitogen-activated protein kinase and matrix metalloproteinase-2 expressions in human colon tumors. 2005 , 11, 3065-9	10
222	Increased expression of mitogen-activated protein kinase and its upstream regulating signal in human gastric cancer. 2005 , 11, 623-8	62
221	Influence of acid and bile acid on ERK activity, PPARgamma expression and cell proliferation in normal human esophageal epithelial cells. 2006 , 12, 2445-9	14
220	H pylori stimulates proliferation of gastric cancer cells through activating mitogen-activated protein kinase cascade. 2006 , 12, 5972-7	16
219	Evidence for a role of mitogen-activated protein kinases in the treatment of experimental acute pancreatitis. 2014 , 20, 16535-43	18
218	Therapeutic potential of targeting acinar cell reprogramming in pancreatic cancer. 2016 , 22, 7046-57	15
217	Rapid mitogen-activated protein kinase by basic fibroblast growth factor in rat intestine after ischemia/reperfusion injury. 2003 , 9, 1312-7	16
216	Activation of phosphorylating-p38 mitogen-activated protein kinase and its relationship with localization of intestinal stem cells in rats after ischemia-reperfusion injury. 2003 , 9, 2036-9	13
215	Evasion of Host Defence by Leishmania donovani: Subversion of Signaling Pathways. 2011 , 2011, 343961	31

(2001-2016)

214	Shikonin Induces Apoptotic Cell Death via Regulation of p53 and Nrf2 in AGS Human Stomach Carcinoma Cells. 2016 , 24, 501-9	15
213	Electroacupuncture reduces apoptotic index and inhibits p38 mitogen-activated protein kinase signaling pathway in the hippocampus of rats with cerebral ischemia/reperfusion injury. 2017 , 12, 409-416	11
212	Epigallocatechin-3-gallate Inhibits LPS-Induced NF- B and MAPK Signaling Pathways in Bone Marrow-Derived Macrophages. 2012 , 6, 188-96	38
211	Tumor Suppressor WWOX Interacts with MEK2 and Activates ERK Pathway. 2011 , 32, 2817-2819	3
210	Mechanism of an inhibitory effect of nipradilol on rat vascular smooth muscle cell growth. 2003 , 10, 226-33	3
209	ras Gene mutations and expression of Ras signal transduction mediators in gastric adenocarcinomas. 2002 , 126, 1096-100	19
208	Fucosyltransferase IV enhances expression of MMP-12 stimulated by EGF via the ERK1/2, p38 and NF- B pathways in A431 cells. 2012 , 13, 1657-62	17
207	Signaling diversity enabled by Rap1-regulated plasma membrane ERK with distinct temporal dynamics. 2020 , 9,	15
206	The heart of a hibernator: EGFR and MAPK signaling in cardiac muscle during the hibernation of thirteen-lined ground squirrels,. 2019 , 7, e7587	10
205	Royal jelly from different floral sources possesses distinct wound-healing mechanisms and ingredient profiles. 2021 , 12, 12059-12076	1
204	Peroxisome proliferator-activated receptor 即egulates cerebral vasospasm after subarachnoid hemorrhage via modulating vascular smooth muscle cells phenotypic conversion. 2021 , 24,	О
203	Repression of MAPK/Erk signaling by Efnb2-Ephb4-Rasa1 is required for lymphatic valve formation.	
202	Protective Effect of Chitosan Oligosaccharide against Hydrogen Peroxide-Mediated Oxidative Damage and Cell Apoptosis via Activating Nrf2/ARE Signaling Pathway. 2021 , 39, 1708-1720	1
201	Signal Transduction in the Adapted Heart: Implication of Protein Kinase C-Dependent and -Independent Pathways. 2000 , 3-16	
200	Inhibitors of the MAPK pathway. 2000 , 165-191	
199	The Tetramitus Assay. 2001 , 391-425	
198	The Regulation of Enzymatic Activity and Metabolism. 2001, 535-587	
197	Biologische Signale. 2001 , 465-518	

196	Kinase Suppressor of Ras as a Ceramide-Activated Protein Kinase. 2002, 63-71	
195	MAP Kinase Modules in Signaling. 2002 , 119-129	
194	The MEK/ERK pathway as a target for stroke therapy. 2002 , 31-44	
193	Nicotinic acetylcholine receptors, beta-adrenergic receptors and lung cancer. 2002 , 94-115	
192	Mechanism of cell death of rat cardiac fibroblasts induced by serum depletion. 2003, 119-126	
191	Activation of Phospholipase Clby Nitric Oxide in Choriocarcinoma Cell Line, BeWo Cells. 2003 , 13, 849-855	
190	Modulation of Arachidonic Acid Metabolism by Phorbol 12-Myristate 13-Acetate in Monocytes and Myocytes. 2004 , 329-340	
189	Activation of Mitogen-Activated Protein Kinases and Protein Kinase B/Akt Signaling by Oxidative Stress in Vascular Smooth Muscle Cells: Involvement in Vascular Pathophysiology. 2004 , 405-416	1
188	Influence of prostaglandin A2 and 2-methoxyestradiol on mitogen-activated protein kinase (MAPK) expression levels in malignant cell lines. 2004 , 25, 133-139	3
187	Signal Transduction in Bile Formation and Cholestasis. 2004 , 112-125	
186	Redox Regulation of Ischemic Heart Disease. 2004 , 203-221	
185	Signaling Mechanisms Underlying Toxicant-Induced Gliosis. 2004 , 141-171	
184	Cellular Mechanotransduction. 2004,	
183	Vitamin D Control of the Calcitonin Gene in Thyroid C Cells. 2005 , 687-701	1
182	TISSUE EXPANSION. 2006 , 1067-1077	
181	Physiologie und Pathophysiologie der Zelle. 2007 , 1-32	
180	Propofol-induced Immediate Early Gene Expression in Human Neuroblastoma Cell Lines. 2008 , 54, 189	
179	Genetics of Uveal Melanoma. 2008, 4925-4934	

178	Role of Hyperglycemia and Redox-Induced Signaling in Vascular Complications of Diabetes. 2008 , 177-192	2
177	Receptor Signaling Pathways in Heart Failure: Transgenic Mouse Models. 2008 , 89-111	
176	CELL CYCLE PHARMACOLOGY, ANTIPROLIFERATION, AND APOPTOSIS. 2009 , 83-90	
175	Combined therapy with disintegrin and melphalan as a new strategy in inhibition of endometrial cancer cell line (Ishikawa) growth. 2009 , 47, S121-5	2
174	(S,R)-3-Phenyl-4,5-dihydro-5-isoxazole acetic acidNitric Oxide (GIT-27NO) [New Dress for Nitric Oxide Mission. 2010 , 443-457	
173	Novel dinuclear platinum(II) complexes targets NFkappaB signaling pathway to induce apoptosis and inhibit metabolism of MCF-7 breast cancer cells. 2009 , 47, S141-6	5
172	Chronic Tissue Expansion. 2010 , 165-173	
171	The Effect of the PD98059 on H2O2 Induced Apoptosis and Associated Proteins of Human Breast Cancer Cells. 2011 , 01, 39-44	
170	MAP Kinase. 2011 , 2162-2167	
169	The Effects of Treadmill Training on Neurotrophins and Immediately Early Protein in Obese Rats. 2011 , 21, 985-991	1
168	Mesenchymal Stem Cells: Role of Mechanical Strain in Promoting Apoptosis and Differentiation. 2012 , 199-206	
167	Nutritional Genomics. 2011 , 77-138	1
166	Downstream Pathways of Adenosine. 2013 , 131-156	2
165	WWOX Induces MEK2-Mediated Cell Death in a p53 Independent Manner. 2012 , 33, 2756-2758	
164	Introduction. 2013 , 1-3	
163	Allgemeine Pharmakologie und Toxikologie. 2013, 1-93	
162	Oxidative Stress and Angiogenesis in Tumor Progression. 2013 , 394-425	
161	Characterization of Protein Complexes. 117-144	

160	Lens Epithelial Cell Proliferation. 2014 , 59-80	
159	Intracellular Signaling. 2014 , 22-39.e8	
158	S. 1990 , 246-263	
157	Fc R I-Induced Protein Tyrosine Phosphorylation. 1997 , 33-54	2
156	Signal Transduction through the MAP kinase Pathway. 1997 , 147-151	
155	The Mechanism of Insulin Receptor Binding, Activation and Signal Transduction. 1997 , 89-107	
154	Mechanisms of cell cycle blocks at the G2/M transition and their role in differentiation and development. 1998 , 20, 73-100	
153	Signaling Components and Pathways. 1998 , 41-95	
152	Intracellular signal transduction in liver regeneration. 1998 , 366-401	
151	Molekulare Grundlagen der Herzinsuffizienz. 1998 , 147-221	O
150	Intracellular Signal Transduction Pathways Involved in Hepatocyte DNA Synthesis Following Growth Factor Stimulation. 1998 , 515-531	
149	Bits for an Organic Microprocessor: Protein Phosphorylation/Dephosphorylation. 1999 , 235-263	1
148	CD22 Cross-Linking Generates B-Cell Antigen Receptor-Independent Signals That Activate the JNK/SAPK Signaling Cascade. 1999 , 94, 1382-1392	6
147	Distinct Roles of JNKs/p38 MAP Kinase and ERKs in Apoptosis and Survival of HCD-57 Cells Induced by Withdrawal or Addition of Erythropoietin. 1999 , 94, 4067-4076	2
146	Streptococcus-Mediated Host Cell Signaling. 100-112	
145	Immunology of Cutaneous Tumors and Immunotherapy for Melanoma. 2015 , 277-298	
144	Encyclopedia of Cancer. 2015 , 1-6	

142	Encyclopedia of Cancer. 2015 , 2650-2655	
141	Aberrant Signaling Pathways: Hallmark of Cancer Cells and Target for Nanotherapeutics. 1-35	
140	SNAILs promote G1 phase in selected cancer cells. 2015 , 47, 1863-1873	
139	Encyclopedia of Signaling Molecules. 2016 , 1-8	
138	Pathway Analysis of Highly Conserved Mitogen Activated Protein Kinases (MAPKs). 2016 , 71-82	0
137	MEK5/ERK5. 2016, 1-23	
136	Scaffolding c-Jun N-Terminal Kinase Cascades: Mechanistic Insights from the Reconstituted Arrestin-JNK Cascades. 2017 , 187-198	
135	An Interdisciplinary Approach for Designing Kinetic Models of the Ras/MAPK Signaling Pathway. 2017 , 1636, 455-474	
134	Towards an Integrated Map of Genetic Interactions in Cancer Cells.	
133	Differential protein expression profile in the hypothalamic GT1-7 cell line after exposure to anabolic androgenic steroids. 2017 , 12, e0180409	
132	Cutaneous Reactions to Targeted Anticancer Agents. 2018, 139-153	
131	Tetranuclear Polypyridylruthenium(II) Complexes as Inhibitors and Down-Regulators of Phosphatase Enzymes. 2017 , 2, 10668-10672	
130	Emergent memory in cell signaling: Persistent adaptive dynamics in cascades can arise from the diversity of relaxation time-scales.	
129	Encyclopedia of Signaling Molecules. 2018 , 3052-3074	
128	Encyclopedia of Signaling Molecules. 2018 , 3035-3042	
127	PDEIInhibition impedes the proliferation and survival of human colorectal cancer cell lines harboring oncogenic KRas.	1
126	Loci, genes, and gene networks associated with life history variation in a model ecological organism,Daphnia pulex(complex).	
125	Adenosine Receptors and Drug Discovery in the Cardiovascular System. 2019 , 65-82	

124	Developing single molecule methods for measuring the pathway proteins ERK, AKT, cyclin d and p70s6k in localized colon cancer in relation to mutation status.	
123	Signaling Diversity Enabled by Rap1-Regulated Plasma Membrane ERK with Distinct Temporal Dynamics.	
122	Inhibition of gonadotropin-stimulated steroidogenesis by the erk cascade.	1
121	Immunopathology and Immunotherapy of Melanoma. 2020 , 305-332	
120	Integrated Molecular Characterisation of the MAPK Pathways in Human Cancers.	2
119	Cordycepin inhibits pancreatic cancer cell growth in vitro and in vivo via targeting FGFR2 and blocking ERK signaling. 2020 , 18, 345-355	6
118	The MEK Inhibitor Trametinib Suppresses Major Histocompatibility Antigen-mismatched Rejection Following Pancreatic Islet Transplantation. 2020 , 6, e591	
117	Phosphorylation of Serine114 of the transcription factor ABSCISIC ACID INSENSITIVE 4 is essential for activity.	
116	The GPCR-tarrestin complex allosterically activates C-Raf by binding its amino terminus. 2021 , 297, 101369	1
115	A Rational Design of Helix-Shaped Peptides Employing the Hydrogen-Bond Surrogate Approach: A Modulation Strategy for Ras-RasGRF1 Interaction in Neuropsychiatric Disorders. 2021 , 14,	O
114	Advances in the regulation of natural polysaccharides on human health: The role of apoptosis/autophagy pathway. 2021 , 1-12	1
113	Introduction to Kinases, Cellular Signaling, and Kinase Inhibitors. 2020 , 1-12	
112	Ezrin interacts with the tumor suppressor CHL1 and promotes neuronal differentiation of human neuroblastoma. 2020 , 15, e0244069	1
111	Novel Peptide-Based Inhibitors of Protein Kinases. 2020 , 169-206	O
110	Characteristics of differentiation of osteoclast cells irradiated with active species in atmospheric oxygen plasma. 2020 , 59, SJJF02	2
109	The Therapeutic Potential of MAPK/ERK Inhibitors in the Treatment of Colorectal Cancer. 2021,	2
108	Direct Current Electrical Fields Improve Experimental Wound Healing by Activation of Cytokine Secretion and Erk1/2 Pathway Stimulation. 2021 , 11,	0
107	Mallotus Mollissimus and Solanum Erianthum Exhibit Antikinase, Antiphosphatase and Anti-Cancer Properties. 11, 93-100	

Low-Denisty Lipoprotein and Glomerulosclerosis. **2005**, 45-60

105	Mechanochemical Sensing and Transduction. 2006 , 211-261	
104	Phospholipases and Phagocytosis. 2005 , 97-116	
103	Regulation Of Root Hair Tip Growth: Can Mitogen-Activated Protein Kinases Be Taken Into Account?. 2008 , 91-128	
102	Nfya-1 functions as a substrate of ERK-MAP kinase during Caenorhabditis elegans vulval development. 2021 , 169, 203757	0
101	Structure of mitogen-activated protein kinase kinase 1 in the DFG-out conformation. 2021 , 77, 459-464	O
100	KRAS mutation: from undruggable to druggable in cancer. 2021 , 6, 386	22
99	LncRNA Riken Attenuated Sevoflurane-Induced Neuroinflammation by Regulating the MicroRNA-101a/MKP-1/JNK Pathway. 2021 , 1	1
98	Encyclopedia of Molecular Pharmacology. 2021 , 743-755	
97	Associations of genetic susceptibility to 16 cancers with risk of breast cancer overall and by intrinsic subtypes 2022 , 3, 100077	1
96	GPR17 signaling activation by CHBC agonist induced cell death via modulation of MAPK pathway in glioblastoma 2022 , 291, 120307	0
95	The effects of plasma-derived extracellular vesicles on cumulus expansion and oocyte maturation in mice 2021 , 22, 100593	2
94	Alternative Splicing of MAPKs in the Regulation of Signaling Specificity 2021, 10,	5
93	MicroRNAs as epigenetic regulators of orofacial development 2022 , 124, 1-16	
92	Interrogating Kinase-Substrate Relationships with Proximity Labeling and Phosphorylation Enrichment 2022 ,	2
91	Effects of Heat Stress on the Ruminal Epithelial Barrier of Dairy Cows Revealed by Micromorphological Observation and Transcriptomic Analysis 2021 , 12, 768209	O
90	Capturing the signalling dynamics of the MAPK-AKT-mTOR pathway in a single targeted phosphoproteomics assay.	
89	Capturing the Signalling Dynamics of the MAPK-AKT-mTOR Pathway in a Single Targeted Phosphoproteomics Assay.	

88	Ras Multimers on the Membrane: Many Ways for a Heart-to-Heart Conversation 2022, 13,	0
87	Chemical Composition of Anderss Flower Absolute and Its Skin Wound Healing Activities In Vitro 2022 , 11,	1
86	Aclonifen induces bovine mammary gland epithelial cell death by disrupting calcium homeostasis and inducing ROS production 2022 , 181, 105011	2
85	Berberine as a natural modulator of inflammatory signaling pathways in the immune system: Focus on NF-B, JAK/STAT, and MAPK signaling pathways 2022 ,	3
84	Anticancer potential of allicin: A review 2022 , 177, 106118	4
83	Involvement of IGF-1R-PI3K-AKT-mTOR pathway in increased number of GnRH3 neurons during androgen-induced sex reversal of the brain in female tilapia 2022 , 12, 2450	1
82	Comparison of genetically modified insect-resistant maize and non-transgenic maize revealed changes in soil metabolomes but not in rhizosphere bacterial community 2022 , 13, 1-14	1
81	Effects of Dexamethasone on DNA Synthesis in Lens Epithelial Cells are Dependent on Cell Type and Growth Factor 2022 , 1-23	
80	AoSsk1, a Response Regulator Required for Mycelial Growth and Development, Stress Responses, Trap Formation, and the Secondary Metabolism in 2022 , 8,	4
79	A critical review of cannabis in medicine and dentistry: A look back and the path forward 2022,	0
78	Pomiferin Exerts Antineuroinflammatory Effects through Activating Akt/Nrf2 Pathway and Inhibiting NF-B Pathway 2022 , 2022, 5824657	1
77	ERK1b, a 46-kDa ERK isoform that is differentially regulated by MEK 2022,	
76	The Role of Zinc in Bone Mesenchymal Stem Cell Differentiation 2022,	0
75	Altersolanol B, a fungal tetrahydroanthraquinone, inhibits the proliferation of estrogen receptor-expressing (ER+) human breast adenocarcinoma by modulating PI3K/AKT, p38/ERK MAPK and associated signaling pathways 2022 , 109916	O
74	Therapeutic Targets of KRAS in Colorectal Cancer 2021, 13,	0
73	Untangling the KRAS mutated lung cancer subsets and its therapeutic implications 2021 , 2, 40	O
72	Identification of Genes Related to Cold Tolerance and Novel Genetic Markers for Molecular Breeding in Taiwan Tilapia (spp.) via Transcriptome Analysis 2021 , 11,	1
71	Effects of caffeic acid phenethyl ester use and inhibition of p42/44 MAP kinase signal pathway on caveolin 1 gene expression and antioxidant system in chronic renal failure model of rats 2021 , 1-12	

70	Antioxidant-Rich Vegetables: Impact on Human Health.	O
69	Integrated Metabolomics and Network Pharmacology Analysis Immunomodulatory Mechanisms of Qifenggubiao Granules 2022 , 13, 828175	O
68	Data_Sheet_1.PDF. 2020 ,	
67	Image_1.TIF. 2018 ,	
66	Image_2.TIF. 2018 ,	
65	Image_3.TIF. 2018 ,	
64	Image_4.tif. 2018 ,	
63	Image_5.tif. 2018 ,	
62	Image_6.TIF. 2018 ,	
61	Image_7.TIF. 2018 ,	
60	Image_8.TIF. 2018 ,	
59	The Pathogenicity and Virulence of Leishmania - interplay of virulence factors with host defenses 2022 ,	1
58	Role of PKCd and ERK1/2 in trombin-stimulated vascular smooth muscle cells proliferation. 2013 , 47, 5-9	
57	Therapeutics of platelet-derived growth factor and signaling in different organs. 2022, 671-688	
56	Pharmacological effects of a complex bisabolol/tyclodextrin in a mice arthritis model with involvement of IL-1即L-6 and MAPK. 2022 , 151, 113142	
55	Genome-wide transcriptional regulation in Saccharomyces cerevisiae in response to carbon dioxide.	
54	MAPK1 Is Regulated by LOC102188416/miR-143-3p Axis in Dairy Goat Mammary Epithelial Cells. 2022 , 13, 1013	O
53	Demethoxycurcumin mitigates inflammatory responses in lumbar disc herniation via MAPK and NF-B pathways in vivo and in vitro. 2022 , 108, 108914	1

52	Dissecting the role of protein phosphorylation: a chemical biology toolbox.	3
51	Purpurin suppresses atopic dermatitis via TNF-AFN-IInduced inflammation in HaCaT cells. 2022 , 36, 039463202211111	1
50	Immunohistochemical Expression of Platelet-Derived Growth Factor Receptor ¶PDGFR-∄in Canine Cutaneous Peripheral Nerve Sheath Tumors: A Preliminary Study. 2022 , 9, 345	
49	PP2C positively regulates neuronal insulin signaling and aggravates neuronal insulin resistance.	O
48	Phosphoproteomic analysis of FLCN inactivation highlights differential kinase pathways and regulatory TFEB phosphoserines. 2022 , 100263	_
47	Shikonin derivatives cause apoptosis and cell cycle arrest in human chondrosarcoma cells via death receptors and MAPK regulation. 2022 , 22,	1
46	Aprepitant as plausible inhibitor of MAPK/ERK2 pathway to ameliorate neurological deficits post traumatic brain injury. 2022 , 165, 110909	
45	eEF-2K knockdown synergizes with STS treatment to inhibit cell proliferation, migration, and invasion via the TG2/ERK pathway in A549 cells.	
44	Electrochemical Signal Amplification Strategies and Their Use in Olfactory and Taste Evaluation. 2022 , 12, 566	O
43	Activating transcription factor 2 (AccATF2) regulates tolerance to oxidative stress in Apis cerana cerana. 2022 , 186, 105179	O
42	Systematic review of gastric cancer-associated genetic variants, gene-based meta-analysis, and gene-level functional analysis to identify candidate genes for drug development. 13,	O
41	Functional characterization of MEKK3 in the intestinal immune response to bacterial challenges in grass carp (Ctenopharyngodon idella). 13,	
40	A small molecule screen reveals the essentiality of p38 kinase for choanoflagellate cell proliferation.	
39	Distinct hyperactive RAS/MAPK alleles converge on common GABAergic interneuron core programs.	
38	Role of mitogen-activated protein kinases in the differential regulation of interleukin-2 by cannabinol. 2001 , 69, 841-849	7
37	Environmental oxygen affects ex vivo growth and proliferation of mesenchymal progenitors by modulating mitogen-activated protein kinase and mammalian target of rapamycin signaling. 2022,	O
36	Immunostimulatory Activities of Theobromine on Macrophages via the Activation of MAPK and NF- B Signaling Pathways. 2022 , 44, 4216-4228	1
35	Cytokine storm-calming property of the isoquinoline alkaloids in Coptis chinensis Franch. 13,	0

34	Anti-hyperalgesic effects of photobiomodulation therapy (904[hm) on streptozotocin-induced diabetic neuropathy imply MAPK pathway and calcium dynamics modulation. 2022 , 12,	1
33	Glutathione and Glutaredoxin in Redox Regulation and Cell Signaling of the Lens. 2022, 11, 1973	2
32	Neuronal Agrin Promotes Proliferation of Primary Human Myoblasts in an Age-Dependent Manner. 2022 , 23, 11784	1
31	Effect of Ligustri Lucidi Fructus on myelosuppression in mice induced by cytoxan.	O
30	Ojeoksan Ameliorates Cisplatin-Induced Acute Kidney Injury in Mice by Downregulating MAPK and NF- B Pathways. 2022 , 23, 12254	O
29	Transcriptome analysis of flathead grey mullet (Mugil cephalus) ovarian development induced by recombinant gonadotropin hormones. 13,	O
28	Pine pollen extract alleviates ethanol-induced oxidative stress and apoptosis in HepG2 cells via MAPK signaling. 2023 , 171, 113550	2
27	A New Hope: A Hermaphroditic Nematode Enables Analysis of a Recent Whole Genome Duplication Event. 2022 , 14,	O
26	Inhibition of T Cell Activation by Pharmacologic Disruption of the MEK1/ERK MAP Kinase or Calcineurin Signaling Pathways Results in Differential Modulation of Cytokine Production. 1998 , 160, 2579-2589	50
25	Rapid and Delayed p42/p44 Mitogen-Activated Protein Kinase Activation by Nitric Oxide: The Role of Cyclic GMP and Tyrosine Phosphatase Inhibition. 1998 , 161, 4852-4858	10
24	MEK and ERK Activation in Ras-Disabled RBL-2H3 Mast Cells and Novel Roles for Geranylgeranylated and Farnesylated Proteins in Fc R I-Mediated Signaling. 1998 , 161, 6733-6744	6
23	T Cell Activation Signals Up-Regulate p38 Mitogen-Activated Protein Kinase Activity and Induce TNF-Production in a Manner Distinct from LPS Activation of Monocytes. 1999 , 162, 659-668	21
22	Phosphorylation of Cytosolic Phospholipase A2 and the Release of Arachidonic Acid in Human Neutrophils. 1999 , 162, 2334-2340	14
21	A Phosphatidylcholine-Specific Phospholipase C Regulates Activation of p42/44 Mitogen-Activated Protein Kinases in Lipopolysaccharide-Stimulated Human Alveolar Macrophages. 1999 , 162, 3005-3012	24
20	Extracellular Signal-Regulated Kinases Regulate Leukotriene C4 Generation, But Not Histamine Release or IL-4 Production from Human Basophils. 1999 , 162, 4198-4206	11
19	NF- B -Inducing Kinase Is a Common Mediator of IL-17-, TNF-日 and IL-1日nduced Chemokine Promoter Activation in Intestinal Epithelial Cells. 1999 , 162, 5337-5344	40
18	CD94/NKG2-A Inhibitory Complex Blocks CD16-Triggered Syk and Extracellular Regulated Kinase Activation, Leading to Cytotoxic Function of Human NK Cells. 1999 , 162, 7181-7188	10
17	Phospho-LAT-Independent Activation of the Ras-Mitogen-Activated Protein Kinase Pathway: A Differential Recruitment Model of TCR Partial Agonist Signaling. 1999 , 163, 1853-1858	4

16	Macrophage Colony-Stimulating Factor Induces the Expression of Mitogen-Activated Protein Kinase Phosphatase-1 Through a Protein Kinase C-Dependent Pathway. 1999 , 163, 2452-2462	15
15	Adenosine Inhibits Macrophage Colony-Stimulating Factor-Dependent Proliferation of Macrophages Through the Induction of p27kip-1 Expression. 1999 , 163, 4140-4149	9
14	Dynamics of Protein Kinase Cascades. 2016 , 211-218	O
13	Recombinant Human Prolidase (rhPEPD) Induces Wound Healing in Experimental Model of Inflammation through Activation of EGFR Signalling in Fibroblasts. 2023 , 28, 851	O
12	Negative feedback regulation of MAPK signaling is an important driver of CLL progression.	0
11	Drug Effect Deep Learner Based on Graphical Convolutional Network. 2023 , 83-140	0
10	Distinct Responses to IL4 in Macrophages Mediated by JNK. 2023 , 12, 1127	0
9	Effects of heat and hyposalinity on the gene expression in Acropora pruinosa larvae. 10,	0
8	Phenylethanoid glycosides from traditional Mongolian medicine Cymbaria daurica alleviate alloxan-induced INS-1 cells oxidative stress and apoptosis. 2023 , 12, 1580-1589	0
7	6-Hydroxydopamine Lesioning of Dopamine Neurons in Neonatal and Adult Rats Induces Age-Dependent Consequences. 2022 , 377-441	0
6	Regulation of Cortico-Thalamic JNK1/2 and ERK1/2 MAPKs and Apoptosis-Related Signaling Pathways in PDYN Gene-Deficient Mice Following Acute and Chronic Mild Stress. 2023 , 24, 2303	0
5	The genetic profile and molecular subtypes of human pseudomyxoma peritonei and appendiceal mucinous neoplasms: a systematic review. 2023 , 42, 335-359	O
4	Safety and rapid response of dabrafenib and trametinib therapy during hyperbilirubinemia in metastatic melanoma. 13,	О
3	Cellular signaling impacts upon GABAergic cortical interneuron development. 17,	O
2	A phytobiotic extract, in an aqueous or in a cyclodextrin encapsulated form, added in diet affects meat oxidation, cellular responses and intestinal morphometry and microbiota of broilers. 4,	0
1	Activation loop plasticity and active site coupling in the MAP kinase, ERK2.	0