Walter Becker

List of Publications by Year
in descending order

76 papers	5,079 citations	87843 38 h-index	88593 70 g-index
79 all docs	79 docs citations	79 times ranked	4587 citing authors

#	Article	IF	Citations
1	The kinase DYRK phosphorylates protein-synthesis initiation factor eIF2BÉ› at Ser539 and the microtubule-associated protein tau at Thr212: potential role for DYRK as a glycogen synthase kinase 3-priming kinase. Biochemical Journal, 2001, 355, 609-615.	1.7	299
2	Sequence Characteristics, Subcellular Localization, and Substrate Specificity of DYRK-related Kinases, a Novel Family of Dual Specificity Protein Kinases. Journal of Biological Chemistry, 1998, 273, 25893-25902.	1.6	258
3	The kinase DYRK1A phosphorylates the transcription factor FKHR at Ser329 in vitro, a novel in vivo phosphorylation site. Biochemical Journal, 2001, 355, 597-607.	1.7	247
4	Dyrk, a Dual Specificity Protein Kinase with Unique Structural Features Whose Activity Is Dependent on Tyrosine Residues between Subdomains VII and VIII. Journal of Biological Chemistry, 1996, 271, 3488-3495.	1.6	231
5	Harmine specifically inhibits protein kinase DYRK1A and interferes with neurite formation. FEBS Journal, 2009, 276, 6324-6337.	2.2	224
6	Specificity Determinants of Substrate Recognition by the Protein Kinase DYRK1A. Journal of Biological Chemistry, 2000, 275, 2431-2438.	1.6	219
7	Structural and Functional Characteristics of Dyrk, a Novel Subfamily of Protein Kinases with Dual Specificity. Progress in Molecular Biology and Translational Science, 1998, 62, 1-17.	1.9	181
8	Activation, regulation, and inhibition of DYRK1A. FEBS Journal, 2011, 278, 246-256.	2.2	175
9	JIP60, a methyl jasmonate-induced ribosome-inactivating protein involved in plant stress reactions.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 7012-7016.	3.3	160
10	Identification of the autophosphorylation sites and characterization of their effects in the protein kinase DYRK1A. Biochemical Journal, 2001, 359, 497-505.	1.7	158
11	The identification of leaf thionin as one of the main jasmonate-induced proteins of barley (Hordeum) Tj ETQq1 1 0.784314 rgBT /Over	2.0	152
12	Differences in gene expression between natural and artificially induced leaf senescence. Planta, 1993, 189, 74.	1.6	152
13	The Down syndrome-related protein kinase DYRK1A phosphorylates p27^{Kip1}and Cyclin D1 and induces cell cycle exit and neuronal differentiation. Cell Cycle, 2014, 13, 2084-2100.	1.3	143
14	Identification of the autophosphorylation sites and characterization of their effects in the protein kinase DYRK1A. Biochemical Journal, 2001, 359, 497.	1.7	115
15	Characterization of Cyclin L2, a Novel Cyclin with an Arginine/Serine-rich Domain. Journal of Biological Chemistry, 2004, 279, 4612-4624.	1.6	107
16	Transient expression of Mnb/Dyrk1a couples cell cycle exit and differentiation of neuronal precursors by inducing p27KIP1 expression and suppressing NOTCH signaling. Development (Cambridge), 2011, 138, 2543-2554.	1.2	107
17	Cloning of a Novel Family of Mammalian GTP-binding Proteins (RagA, RagBs, RagB1) with Remote Similarity to the Ras-related GTPases. Journal of Biological Chemistry, 1995, 270, 28982-28988.	1.6	106
18	Pleiotropy of leptin receptor signalling is defined by distinct roles of the intracellular tyrosines. FEBS Journal, 2004, 272, 109-119.	2.2	93

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19	Identification of the Critical Sequence Elements in the Cytoplasmic Domain of Leptin Receptor Isoforms Required for Janus Kinase/Signal Transducer and Activator of Transcription Activation by Receptor Heterodimers. Molecular Endocrinology, 2002, 16, 859-872.	3.7	90
20	DYRK1A: A Potential Drug Target for Multiple Down Syndrome Neuropathologies. CNS and Neurological Disorders - Drug Targets, 2014, 13, 26-33.	0.8	88
21	Emerging role of DYRK family protein kinases as regulators of protein stability in cell cycle control. Cell Cycle, 2012, 11, 3389-3394.	1.3	87
22	10-Iodo-11H-indolo[3,2-c]quinoline-6-carboxylic Acids Are Selective Inhibitors of DYRK1A. Journal of Medicinal Chemistry, 2015, 58, 3131-3143.	2.9	87
23	The protein kinase DYRK1A phosphorylates the splicing factor SF3b1/SAP155 at Thr434, a novel in vivo phosphorylation site. BMC Biochemistry, 2006, 7, 7.	4.4	78
24	Cloning and Characterization of DYRK1B, a Novel Member of the DYRK Family of Protein Kinases. Biochemical and Biophysical Research Communications, 1999, 254, 474-479.	1.0	70
25	The down syndrome candidate dual-specificity tyrosine phosphorylation-regulated kinase 1A phosphorylates the neurodegeneration-related septin 4. Neuroscience, 2008, 157, 596-605.	1.1	66
26	STAT3 is enriched in nuclear bodies. Journal of Cell Science, 2004, 117, 339-349.	1.2	58
27	Characterisation of the mouse diabetes susceptibility locus Nidd/SJL: islet cell destruction, interaction with the obesity QTL Nob1, and effect of dietary fat. Diabetologia, 2002, 45, 823-830.	2.9	56
28	Mechanism of dual specificity kinase activity of <scp>DYRK</scp>1<scp>A</scp>. FEBS Journal, 2013, 280, 4495-4511.	2.2	53
29	A complex interaction pattern of CIS and SOCS2 with the leptin receptor. Journal of Cell Science, 2006, 119, 2214-2224.	1.2	52
30	Pleiotropy of leptin receptor signalling is defined by distinct roles of the intracellular tyrosines. FEBS Journal, 2005, 272, 109-119.	2.2	50
31	Selectivity Profiling and Biological Activity of Novel Î²-Carbolines as Potent and Selective DYRK1 Kinase Inhibitors. PLoS ONE, 2015, 10, e0132453.	1.1	49
32	Alternative splicing variants of dual specificity tyrosine phosphorylated and regulated kinase 1B exhibit distinct patterns of expression and functional properties. Biochemical Journal, 2003, 372, 881-888.	1.7	47
33	DYRK protein kinases. Current Biology, 2015, 25, R488-R489.	1.8	46
34		2.9	45
35	DYRK1 is a co-activator of FKHR (FOXO1a)-dependent glucose-6-phosphatase gene expression. Biochemical and Biophysical Research Communications, 2003, 300, 764-769.	1.0	45
36	A wakeâ€up call to quiescent cancer cells â€“ potential use of <scp>DYRK</scp>1B inhibitors in cancer therapy. FEBS Journal, 2018, 285, 1203-1211.	2.2	42

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37	Splice Variants of the Dual Specificity Tyrosine Phosphorylation-regulated Kinase 4 (DYRK4) Differ in Their Subcellular Localization and Catalytic Activity*. Journal of Biological Chemistry, 2011, 286, 5494-5505.	1.6	41
38	Isolation and characterization of a cDNA clone encoding a novel jasmonate-induced protein of barley (Hordeum vulgare L.). Plant Molecular Biology, 1992, 19, 1065-1067.	2.0	39
39	Unusual function of the activation loop in the protein kinase DYRK1A. Biochemical and Biophysical Research Communications, 2003, 302, 403-408.	1.0	39
40	The adaptor protein DCAF7 mediates the interaction of the adenovirus E1A oncoprotein with the protein kinases DYRK1A and HIPK2. Scientific Reports, 2016, 6, 28241.	1.6	39
41	Effect of tyrosine autophosphorylation on catalytic activity and subcellular localisation of homeodomain-interacting protein kinases (HIPK). Cell Communication and Signaling, 2015, 13, 3.	2.7	36
42	Molecular Cloning and Characterization of a Novel Mammalian Protein Kinase Harboring a Homology Domain that Defines a Subfamily of Serine/Threonine Kinases. FEBS Journal, 1996, 235, 736-743.	0.2	35
43	Effect of Hyperinsulinemia and Type 2 Diabetes-Like Hyperglycemia on Expression of Hepatic Cytochrome P450 and GlutathioneS-Transferase Isoforms in a New Zealand Obese-Derived Mouse Backcross Population. Journal of Pharmacology and Experimental Therapeutics, 2002, 302, 442-450.	1.3	35
44	Comparison of the effects of insulin, PDGF, interleukin-6, and interferon-g on glucose transport in 3T3-L1 cells: lack of cross-talk between tyrosine kinase receptors and JAK/STAT pathways. Diabetologia, 1996, 39, 1432-1439.	2.9	30
45	Alternative mRNA Splicing of the Novel GTPase Rab28 Generates Isoforms with Different C-Termini. FEBS Journal, 1996, 237, 833-840.	0.2	29
46	Differential hepatic gene expression in a polygenic mouse model with insulin resistance and hyperglycemia: evidence for a combined transcriptional dysregulation of gluconeogenesis and fatty acid synthesis. Journal of Molecular Endocrinology, 2004, 32, 195-208.	1.1	28
47	Mechanism of attenuation of leptin signaling under chronic ligand stimulation. BMC Biochemistry, 2010, 11, 2.	4.4	27
48	DYRK1B mutations associated with metabolic syndrome impair the chaperone-dependent maturation of the kinase domain. Scientific Reports, 2017, 7, 6420.	1.6	26
49	Functional characterization of DYRK1A missense variants associated with a syndromic form of intellectual deficiency and autism. Biology Open, 2018, 7, .	0.6	26
50	Characterization of the human DYRK1A promoter and its regulation by the transcription factor E2F1. BMC Molecular Biology, 2008, 9, 30.	3.0	25
51	Substitution of conserved tyrosine residues in helix 4 (Y143) and 7 (Y293) affects the activity, but not IAPS-forskolin binding, of the glucose transporter GLUT4. FEBS Letters, 1994, 348, 114-118.	1.3	24
52	Characterization of cyclin L1 as an immobile component of the splicing factor compartment. FASEB Journal, 2007, 21, 3142-3152.	0.2	23
53	Leptin induces inflammation-related genes in RINm5F insulinoma cells. BMC Molecular Biology, 2007, 8, 41.	3.0	22
54	Indole-3-Carbonitriles as DYRK1A Inhibitors by Fragment-Based Drug Design. Molecules, 2018, 23, 64.	1.7	21

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55	Hyperleptinemia and leptin receptor variant Asp600Asn in the obese, hyperinsulinemic KK mouse strain. Journal of Molecular Endocrinology, 1998, 21, 337-345.	1.1	19
56	The mouse ADP-ribosylation factor-like 4 gene: two separate promoters direct specific transcription in tissues and testicular germ cell. Biochemical Journal, 1998, 335, 259-265.	1.7	19
57	Development of novel 2,4-bispyridyl thiopheneâ€“based compounds as highly potent and selective Dyrk1A inhibitors. Part I: Benzamide and benzylamide derivatives. European Journal of Medicinal Chemistry, 2018, 157, 1031-1050.	2.6	18
58	cDNA cloning and characterization of rat Clk3, a LAMMER kinase predominately expressed in testis. Biochimica Et Biophysica Acta - Molecular Cell Research, 1996, 1312, 63-67.	1.9	17
59	Development of novel amideâ€“derivatized 2,4-bispyridyl thiophenes as highly potent and selective Dyrk1A inhibitors. Part II: Identification of the cyclopropylamide moiety as a key modification. European Journal of Medicinal Chemistry, 2018, 158, 270-285.	2.6	16
60	Cloning of a novel member (ARL5) of the ARF-family of Ras-related GTPases. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1996, 1308, 1-6.	2.4	15
61	NGF Upregulates the Plasminogen Activation Inhibitor-1 in Neurons via the Calcineurin/NFAT Pathway and the Down Syndrome-Related Proteins DYRK1A and RCAN1 Attenuate This Effect. PLoS ONE, 2013, 8, e67470.	1.1	15
62	Mutation of two conserved arginine residues in the glucose transporter GLUT4 supresses transport activity, but not glucose-inhibitable binding of inhibitory ligands. Naunyn-Schmiedeberg's Archives of Pharmacology, 1995, 353, 36-41.	1.4	13
63	Distribution of the mRNA for protein phosphatase T in rat brain. Molecular Brain Research, 1996, 36, 23-28.	2.5	13
64	Extracellular ATP activates NFAT-dependent gene expression in neuronal PC12 cells via P2X receptors. BMC Neuroscience, 2011, 12, 90.	0.8	11
65	Dyrk1a. The AFCS-nature Molecule Pages, 0, , .	0.2	11
66	Dyrk1b. The AFCS-nature Molecule Pages, 0, , .	0.2	11
67	Discovery of novel 6-hydroxybenzothiazole urea derivatives as dual Dyrk1A/Î±-synuclein aggregation inhibitors with neuroprotective effects. European Journal of Medicinal Chemistry, 2022, 227, 113911.	2.6	11
68	How to Separate Kinase Inhibition from Undesired Monoamine Oxidase A Inhibitionâ€”The Development of the DYRK1A Inhibitor AnnH75 from the Alkaloid Harmine. Molecules, 2020, 25, 5962.	1.7	10
69	Development of a sensitive non-radioactive protein kinase assay and its application for detecting DYRK activity in Xenopus laevis oocytes. BMC Biochemistry, 2010, 11, 20.	4.4	8
70	Recent insights into the function of DYRK1A. FEBS Journal, 2011, 278, 222-222.	2.2	8
71	The Unfolded Protein Response Is a Major Driver of LCN2 Expression in BCRâ€“ABL- and JAK2V617F-Positive MPN. Cancers, 2021, 13, 4210.	1.7	7
72	Differential maturation and chaperone dependence of the paralogous protein kinases DYRK1A and DYRK1B. Scientific Reports, 2022, 12, 2393.	1.6	6

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73	Mutational analysis of two residues in the DYRK homology box of the protein kinase DYRK1A. BMC Research Notes, 2018, 11, 297.	0.6	5
74	Discovery of Hydroxybenzothiazole Urea Compounds as Multitargeted Agents Suppressing Major Cytotoxic Mechanisms in Neurodegenerative Diseases. ACS Chemical Neuroscience, 2021, 12, 4302-4318.	1.7	4
75	Preparation of Recombinant Histone H3 as a Substrate for Protein Kinase Assays. Analytical Biochemistry, 1999, 274, 138-141.	1.1	3
76	Cloning and functional characterization of the ovine malic enzyme promoter. Gene, 2009, 428, 36-40.	1.0	3