Christosomos Prodromou

List of Publications by Year
in descending order

119 papers	15,629 citations	31976 53 h-index	20358 116 g-index
125 all docs	125 docs citations	125 times ranked	10179 citing authors

#	Article	IF	Citations
1	Identification and Structural Characterization of the ATP/ADP-Binding Site in the Hsp90 Molecular Chaperone. Cell, 1997, 90, 65-75.	28.9	1,203
2	Structure and Mechanism of the Hsp90 Molecular Chaperone Machinery. Annual Review of Biochemistry, 2006, 75, 271-294.	11.1	988
3	Structural Basis for Inhibition of the Hsp90 Molecular Chaperone by the Antitumor Antibiotics Radicicol and Geldanamycin. Journal of Medicinal Chemistry, 1999, 42, 260-266.	6.4	948
4	Crystal structure of an Hsp90â€“nucleotideâ€“p23/Sba1 closed chaperone complex. Nature, 2006, 440, 1013-1017.	27.8	857
5	ATP binding and hydrolysis are essential to the function of the Hsp90 molecular chaperone invivo. EMBO Journal, 1998, 17, 4829-4836.	7.8	662
6	Activation of the ATPase Activity of Hsp90 by the Stress-Regulated Cochaperone Aha1. Molecular Cell, 2002, 10, 1307-1318.	9.7	487
7	Structural and Functional Analysis of the Middle Segment of Hsp90: Implications for ATP Hydrolysis and Client Protein and Cochaperone Interactions. Molecular Cell, 2003, 11, 647-658.	9.7	434
8	NVP-AUY922: A Novel Heat Shock Protein 90 Inhibitor Active against Xenograft Tumor Growth, Angiogenesis, and Metastasis. Cancer Research, 2008, 68, 2850-2860.	0.9	433
9	The ATPase cycle of Hsp90 drives a molecular clamp' via transient dimerization of the N-terminal domains. EMBO Journal, 2000, 19, 4383-4392.	7.8	418
10	The Hsp90 molecular chaperone: an open and shut case for treatment. Biochemical Journal, 2008, 410, 439-453.	3.7	410
11	4,5-Diarylisoxazole Hsp90 Chaperone Inhibitors: Potential Therapeutic Agents for the Treatment of Cancer. Journal of Medicinal Chemistry, 2008, 51, 196-218.	6.4	386
12	Chaperoned Ubiquitylationâ€”Crystal Structures of the CHIP U Box E3 Ubiquitin Ligase and a CHIP-Ubc13-Uev1a Complex. Molecular Cell, 2005, 20, 525-538.	9.7	382
13	Regulation of Hsp90 ATPase activity by tetratricopeptide repeat (TPR)-domain co-chaperones. EMBO Journal, 1999, 18, 754-762.	7.8	376
14	The Mechanism of Hsp90 Regulation by the Protein Kinase-Specific Cochaperone p50cdc37. Cell, 2004, 116, 87-98.	28.9	319
15	Structure and in vivo function of Hsp90. Current Opinion in Structural Biology, 2000, 10, 46-51.	5.7	294
16	Structure of an Hsp90-Cdc37-Cdk4 Complex. Molecular Cell, 2006, 23, 697-707.	9.7	288
17	Regulation of Hsp90 ATPase Activity by the Co-chaperone Cdc37p/p50. Journal of Biological Chemistry, 2002, 277, 20151-20159.	3.4	246
18	Structure and Functional Relationships of Hsp90. Current Cancer Drug Targets, 2003, 3, 301-323.	1.6	242

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19	The identification, synthesis, protein crystal structure and in vitro biochemical evaluation of a new 3,4-diarylpyrazole class of Hsp90 inhibitors. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 3338-3343.	2.2	228
20	Mechanisms of Hsp90 regulation. Biochemical Journal, 2016, 473, 2439-2452.	3.7	223
21	Recursive PCR: a novel technique for total gene synthesis. Protein Engineering, Design and Selection, 1992, 5, 827-829.	2.1	217
22	A molecular clamp in the crystal structure of the N-terminal domain of the yeast Hsp90 chaperone. Nature Structural Biology, 1997, 4, 477-482.	9.7	214
23	High-throughput screening assay for inhibitors of heat-shock protein 90 ATPase activity. Analytical Biochemistry, 2004, 327, 176-183.	2.4	192
24	Hsp90-Dependent Activation of Protein Kinases Is Regulated by Chaperone-Targeted Dephosphorylation of Cdc37. Molecular Cell, 2008, 31, 886-895.	9.7	184
25	Co-chaperone Regulation of Conformational Switching in the Hsp90 ATPase Cycle. Journal of Biological Chemistry, 2004, 279, 51989-51998.	3.4	183
26	Structural basis for recruitment of the ATPase activator Aha1 to the Hsp90 chaperone machinery. EMBO Journal, 2004, 23, 1402-1410.	7.8	179
27	Structure, function, and mechanism of the Hsp90 molecular chaperone. Advances in Protein Chemistry, 2001, 59, 157-186.	4.4	172
28	Swe1Wee1-Dependent Tyrosine Phosphorylation of Hsp90 Regulates Distinct Facets of Chaperone Function. Molecular Cell, 2010, 37, 333-343.	9.7	165
29	Structural basis for recruitment of the ATPase activator Aha1 to the Hsp90 chaperone machinery. EMBO Journal, 2004, 23, 511-519.	7.8	164
30	A Two-Hybrid Screen of the Yeast Proteome for Hsp90 Interactors Uncovers a Novel Hsp90 Chaperone Requirement in the Activity of a Stress-Activated Mitogen-Activated Protein Kinase, Slt2p (Mpk1p). Eukaryotic Cell, 2005, 4, 849-860.	3.4	159
31	The â€˜active lifeâ€™ of Hsp90 complexes. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 614-623.	4.1	159
32	Threonine 22 Phosphorylation Attenuates Hsp90 Interaction with Cochaperones and Affects Its Chaperone Activity. Molecular Cell, 2011, 41, 672-681.	9.7	146
33	Inhibition of the heat shock protein 90 molecular chaperone in vitro and in vivo by novel, synthetic, potent resorcinylic pyrazole/isoxazole amide analogues. Molecular Cancer Therapeutics, 2007, 6, 1198-1211.	4.1	141
34	ATP-competitive inhibitors block protein kinase recruitment to the Hsp90-Cdc37 system. Nature Chemical Biology, 2013, 9, 307-312.	8.0	132
35	CDK-Dependent Hsp70 Phosphorylation Controls G1 Cyclin Abundance and Cell-Cycle Progression. Cell, 2012, 151, 1308-1318.	28.9	122
36	Dynamic Tyrosine Phosphorylation Modulates Cycling of the HSP90-P50CDC37-AHA1 Chaperone Machine. Molecular Cell, 2012, 47, 434-443.	9.7	113

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37	In vitro Biological Characterization of a Novel, Synthetic Diaryl Pyrazole Resorcinol Class of Heat Shock Protein 90 Inhibitors. Cancer Research, 2007, 67, 2206-2216.	0.9	111
38	Structural Basis for Assembly of Hsp90-Sgt1-CHORD Protein Complexes: Implications for Chaperoning of NLR Innate Immunity Receptors. Molecular Cell, 2010, 39, 269-281.	9.7	108
39	Charged linker sequence modulates eukaryotic heat shock protein 90 (Hsp90) chaperone activity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2937-2942.	7.1	107
40	Structural and functional coupling of Hsp90- and Sgt1-centred multi-protein complexes. EMBO Journal, 2008, 27, 2789-2798.	7.8	104
41	Asymmetric Hsp90ÂN Domain SUMOylation Recruits Aha1 and ATP-Competitive Inhibitors. Molecular Cell, 2014, 53, 317-329.	9.7	101
42	The ATPase-dependent chaperoning activity of Hsp90a regulates thick filament formation and integration during skeletal muscle myofibrillogenesis. Development (Cambridge), 2008, 135, 1147-1156.	2.5	94
43	Structural Basis for Phosphorylation-Dependent Recruitment of Tel2 to Hsp90 by Pih1. Structure, 2014, 22, 805-818.	3.3	86
44	Optimizing Natural Products by Biosynthetic Engineering: Discovery of Nonquinone Hsp90 Inhibitors. Journal of Medicinal Chemistry, 2008, 51, 5494-5497.	6.4	79
45	Hsp90 charged-linker truncation reverses the functional consequences of weakened hydrophobic contacts in the N domain. Nature Structural and Molecular Biology, 2009, 16, 1141-1147.	8.2	78
46	Synthesis of 19-substituted geldanamycins with altered conformations and their binding to heat shock protein Hsp90. Nature Chemistry, 2013, 5, 307-314.	13.6	78
47	The aconitase of Escherichia coli. Nucleotide sequence of the aconitase gene and amino acid sequence similarity with mitochondrial aconitases, the iron-responsive-element-binding protein and isopropylmalate isomerases. FEBS Journal, 1992, 204, 599-609.	0.2	75
48	Cooperation of local motions in the Hsp90 molecular chaperone ATPase mechanism. Nature Chemical Biology, 2016, 12, 628-635.	8.0	68
49	Structure of the TPR Domain of AIP: Lack of Client Protein Interaction with the C-Terminal Î±-7 Helix of the TPR Domain of AIP Is Sufficient for Pituitary Adenoma Predisposition. PLoS ONE, 2012, 7, e53339.	2.5	67
50	Inhibition of Hsp90 with Synthetic Macrolactones: Synthesis and Structural and Biological Evaluation of Ring and Conformational Analogs of Radicicol. Chemistry and Biology, 2006, 13, 1203-1215.	6.0	64
51	Tumor suppressor Tsc1 is a new Hsp90 coâ€chaperone that facilitates folding of kinase and nonâ€kinase clients. EMBO Journal, 2017, 36, 3650-3665.	7.8	64
52	Expressed in the Yeast Saccharomyces cerevisiae , Human ERK5 Is a Client of the Hsp90 Chaperone That Complements Loss of the Slt2p (Mpk1p) Cell Integrity Stress-Activated Protein Kinase. Eukaryotic Cell, 2006, 5, 1914-1924.	3.4	60
53	Mps1 Mediated Phosphorylation of Hsp90 Confers Renal Cell Carcinoma Sensitivity and Selectivity to Hsp90 Inhibitors. Cell Reports, 2016, 14, 872-884.	6.4	60
54	Post-translational modification and conformational state of Heat Shock Protein 90 differentially affect binding of chemically diverse small molecule inhibitors. Oncotarget, 2013, 4, 1065-1074.	1.8	58

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55	Molecular Characterization of Macbecin as an Hsp90 Inhibitor. Journal of Medicinal Chemistry, 2008, 51, 2853-2857.	6.4	56
56	The FNIP co-chaperones decelerate the Hsp90 chaperone cycle and enhance drug binding. Nature Communications, 2016, 7, 12037.	12.8	56
57	c-Abl Mediated Tyrosine Phosphorylation of Aha1 Activates Its Co-chaperone Function in Cancer Cells. Cell Reports, 2015, 12, 1006-1018.	6.4	54
58	RPAP3 provides a flexible scaffold for coupling HSP90 to the human R2TP co-chaperone complex. Nature Communications, 2018, 9, 1501.	12.8	54
59	Structural Basis of the Radicicol Resistance Displayed by a Fungal Hsp90. ACS Chemical Biology, 2009, 4, 289-297.	3.4	53
60	Sensitivity to Hsp90-targeting drugs can arise with mutation to the Hsp90 chaperone, cochaperones and plasma membrane ATP binding cassette transporters of yeast. FEBS Journal, 2003, 270, 4689-4695.	0.2	52
61	Yeast is selectively hypersensitised to heat shock protein 90 (Hsp90)-targetting drugs with heterologous expression of the human Hsp90Î², a property that can be exploited in screens for new Hsp90 chaperone inhibitors. Gene, 2003, 302, 165-170.	2.2	51
62	A common conformationally coupled ATPase mechanism for yeast and human cytoplasmic HSP90s. FEBS Journal, 2009, 276, 199-209.	4.7	51
63	In the Yeast Heat Shock Response, Hsf1-Directed Induction of Hsp90 Facilitates the Activation of the Slt2 (Mpk1) Mitogen-Activated Protein Kinase Required for Cell Integrity. Eukaryotic Cell, 2007, 6, 744-752.	3.4	49
64	Differential Regulation of G1 CDK Complexes by the Hsp90-Cdc37 Chaperone System. Cell Reports, 2017, 21, 1386-1398.	6.4	49
65	The Structure of the R2TP Complex Defines a Platform for Recruiting Diverse Client Proteins to the HSP90 Molecular Chaperone System. Structure, 2017, 25, 1145-1152.e4.	3.3	48
66	Rapid Proteasomal Degradation of Mutant Proteins Is the Primary Mechanism Leading to Tumorigenesis in Patients With Missense<i>AIP</i>Mutations. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 3144-3154.	3.6	47
67	Chaperone ligand-discrimination by the TPR-domain protein Tah1. Biochemical Journal, 2008, 413, 261-268.	3.7	46
68	Qri2/Nse4, a component of the essential Smc5/6 DNA repair complex. Molecular Microbiology, 2005, 55, 1735-1750.	2.5	43
69	Investigating the protein-protein interactions of the yeast Hsp90 chaperone system by two-hybrid analysis: potential uses and limitations of this approach. Cell Stress and Chaperones, 2004, 9, 359.	2.9	41
70	The Hsp90 mosaic: a picture emerges. Nature Structural and Molecular Biology, 2009, 16, 2-6.	8.2	40
71	Restricting direct interaction of CDC37 with HSP90 does not compromise chaperoning of client proteins. Oncogene, 2015, 34, 15-26.	5.9	39
72	Hsp90 middle domain phosphorylation initiates a complex conformational program to recruit the ATPase-stimulating cochaperone Aha1. Nature Communications, 2019, 10, 2574.	12.8	39

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73	Chemical Perturbation of Oncogenic Protein Folding: from the Prediction of Locally Unstable Structures to the Design of Disruptors of Hsp90â€“Client Interactions. Chemistry - A European Journal, 2020, 26, 9459-9465.	3.3	39
74	Post-translational Regulation of FNIP1 Creates a Rheostat for the Molecular Chaperone Hsp90. Cell Reports, 2019, 26, 1344-1356.e5.	6.4	38
75	Combinatorial Domain Hunting: An effective approach for the identification of soluble protein domains adaptable to high-throughput applications. Protein Science, 2006, 15, 2356-2365.	7.6	34
76	Dihydropyridine Derivatives Modulate Heat Shock Responses and have a Neuroprotective Effect in a Transgenic Mouse Model of Alzheimerâ€™s Disease. Journal of Alzheimer's Disease, 2016, 53, 557-571.	2.6	34
77	Structural mechanism for regulation of the AAA-ATPases RUVBL1-RUVBL2 in the R2TP co-chaperone revealed by cryo-EM. Science Advances, 2019, 5, eaaw1616.	10.3	33
78	Features of the<i>Streptomyces hygroscopicus</i>HtpG reveal how partial geldanamycin resistance can arise with mutation to the ATP binding pocket of a eukaryotic Hsp90. FASEB Journal, 2011, 25, 3828-3837.	0.5	32
79	Multi-chaperone function modulation and association with cytoskeletal proteins are key features of the function of AIP in the pituitary gland. Oncotarget, 2018, 9, 9177-9198.	1.8	31
80	Detection of the ATPase Activity of the Molecular Chaperones Hsp90 and Hsp72 Using the Transcreenerâ„¢ ADP Assay Kit. Journal of Biomolecular Screening, 2010, 15, 279-286.	2.6	29
81	Targeting the Hsp90 Molecular Chaperone with Novel Macrolactams. Synthesis, Structural, Binding, and Cellular Studies. ACS Chemical Biology, 2011, 6, 1339-1347.	3.4	27
82	Dihydropyridines Allosterically Modulate Hsp90 Providing a Novel Mechanism for Heat Shock Protein Co-induction and Neuroprotection. Frontiers in Molecular Biosciences, 2018, 5, 51.	3.5	27
83	Strategies for Stalling Malignancy: Targeting Cancers Addiction to Hsp90. Current Topics in Medicinal Chemistry, 2009, 9, 1352-1368.	2.1	25
84	Regulatory Mechanisms of Hsp90. Biochemistry & Molecular Biology Journal, 2017, 03, 2.	0.3	25
85	The structure of FKBP38 in complex with the MEEVD tetratricopeptide binding-motif of Hsp90. PLoS ONE, 2017, 12, e0173543.	2.5	25
86	The Hsp90 of Candida albicans can confer Hsp90 functions in Saccharomyces cerevisiae: a potential model for the processes that generate immunogenic fragments of this molecular chaperone in C. albicans infections. Microbiology (United Kingdom), 1999, 145, 3455-3463.	1.8	24
87	Advances towards Understanding the Mechanism of Action of the Hsp90 Complex. Biomolecules, 2022, 12, 600.	4.0	24
88	HECTD3 Mediates an HSP90-Dependent Degradation Pathway for Protein Kinase Clients. Cell Reports, 2017, 19, 2515-2528.	6.4	23
89	Inhibition of Hsp90 with Resorcylic Acid Macrolactones: Synthesis and Binding Studies. Chemistry - A European Journal, 2010, 16, 10366-10372.	3.3	22
90	Synthesis of macrolactam analogues of radicicol and their binding to heat shock protein Hsp90. Organic and Biomolecular Chemistry, 2014, 12, 1328.	2.8	22

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91	DNA fragmentation-based combinatorial approaches to soluble protein expression. Drug Discovery Today, 2007, 12, 931-938.	6.4	20
92	A simple yeast-based system for analyzing inhibitor resistance in the human cancer drug targets Hsp90Î±/Î². Biochemical Pharmacology, 2010, 79, 1581-1588.	4.4	20
93	Structure of the TELO2-TTI1-TTI2 complex and its function in TOR recruitment to the R2TP chaperone. Cell Reports, 2021, 36, 109317.	6.4	20
94	Backbone resonance assignments of the 25kD N-terminal ATPase domain from the Hsp90 chaperone. Journal of Biomolecular NMR, 2002, 23, 327-328.	2.8	19
95	Structuralâ€“Thermodynamic Relationships of Interactions in the N-Terminal ATP-Binding Domain of Hsp90. Journal of Molecular Biology, 2009, 392, 923-936.	4.2	19
96	The integrity and organization of the human AIPL1 functional domains is critical for its role as a HSP90-dependent co-chaperone for rod PDE6. Human Molecular Genetics, 2017, 26, 4465-4480.	2.9	18
97	The structure-function relationship of oncogenic LMTK3. Science Advances, 2020, 6, .	10.3	18
98	Co-Crystalization and In Vitro Biological Characterization of 5-Aryl-4-(5-Substituted-2-4-Dihydroxyphenyl)-1,2,3-Thiadiazole Hsp90 Inhibitors. PLoS ONE, 2012, 7, e44642.	2.5	18
99	Expression and crystallization of the yeast Hsp82 chaperone, and preliminary x-ray diffraction studies of the amino-terminal domain. Proteins: Structure, Function and Bioinformatics, 1996, 25, 517-522.	2.6	17
100	<i>In vivo</i>bioassay to test the pathogenicity of missense human<i>AIP</i>variants. Journal of Medical Genetics, 2018, 55, 522-529.	3.2	15
101	Advances on the Structure of the R2TP/Prefoldin-like Complex. Advances in Experimental Medicine and Biology, 2018, 1106, 73-83.	1.6	15
102	Synthesis of a modified gene encoding human ornithine transcarbamylase for expression in mammalian mitochondrial and universal translation systems: a novel approach towards correction of a genetic defect. Gene, 1996, 169, 251-255.	2.2	14
103	Clinical and functional analyses of AIPL1 variants reveal mechanisms of pathogenicity linked to different forms of retinal degeneration. Scientific Reports, 2020, 10, 17520.	3.3	14
104	Two-colour single-molecule photoinduced electron transfer fluorescence imaging microscopy of chaperone dynamics. Nature Communications, 2021, 12, 6964.	12.8	14
105	Tah1 helix-swap dimerization prevents mixed Hsp90 co-chaperone complexes. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 1197-1206.	2.5	13
106	The Stoichiometric Interaction of the Hsp90-Sgt1-Rar1 Complex by CD and SRCD Spectroscopy. Frontiers in Molecular Biosciences, 2017, 4, 95.	3.5	12
107	DNA fragmentation based combinatorial approaches to soluble protein expression. Drug Discovery Today, 2007, 12, 939-947.	6.4	11
108	Expression and crystallization of the yeast Hsp82 chaperone, and preliminary xâ€ray diffraction studies of the aminoâ€terminal domain. , 1996, 25, 517-522.		8

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109	A combinatorial method to enable detailed investigation of proteinâ€"protein interactions. Future Medicinal Chemistry, 2011, 3, 271-282.	2.3	5
110	Editorial: The Role of Heat Shock Proteins in Neuroprotection. Frontiers in Pharmacology, 2020, 11, 1227.	3.5	4
111	Cloning of theHIS3 gene ofYarrowia lipolytica. Antonie Van Leeuwenhoek, 1991, 60, 95-99.	1.7	3
112	The PTPIP51 TPR-Domain: A Novel Lipid Transfer Domain?. Contact (Thousand Oaks (Ventura County,) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.3	2
113	Recognition of BRAF by CDC37 and Re-Evaluation of the Activation Mechanism for the Class 2 BRAF-L597R Mutant. Biomolecules, 2022, 12, 905.	4.0	2
114	â€œTuningâ€•the ATPase Activity of Hsp90. , 2016, , 469-490.		0
115	Abstract 2677: A detailed analysis of protein binding and biological activity of methoxy-substituted resorcinylic isoxazole amide HSP90 inhibitors. , 2010, , .		0
116	Abstract 4749: Insights into the molecular mechanism of HSP90 binding of methoxy-substituted resorcinylic isoxazole amide inhibitors reveal different isoform selectivity profiles. , 2012, , .		0
117	Structural basis for the interaction of HSP90 with R2TP and TTT complexes. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C1666-C1666.	0.1	0
118	The â€˜Complex Worldâ€™ of the Hsp90 Co-chaperone R2TP. Heat Shock Proteins, 2019, , 297-316.	0.2	0
119	Structure of the TELO2-TTI1-TTI2 Complex and its Function in TOR Recruitment to the R2TP Chaperone. SSRN Electronic Journal, 0, , .	0.4	0