Edward D Sturrock

List of Publications by Year
in descending order

86	3,997	147566	123241
papers	citations	31 h-index	61 g-index

86	86	86	3430
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal structure of the human angiotensin-converting enzymeâ€“lisinopril complex. Nature, 2003, 421, 551-554.	13.7	738
2	Ace revisited: A new target for structure-based drug design. Nature Reviews Drug Discovery, 2003, 2, 891-902.	21.5	285
3	Structural Details on the Binding of Antihypertensive Drugs Captopril and Enalaprilat to Human Testicular Angiotensin I-Converting Enzymeâ€,â€¡. Biochemistry, 2004, 43, 8718-8724.	1.2	240
4	Novel Therapeutic Approaches Targeting the Renin-Angiotensin System and Associated Peptides in Hypertension and Heart Failure. Pharmacological Reviews, 2019, 71, 539-570.	7.1	235
5	Angiotensin-Converting Enzyme-2 (ACE2):Â Comparative Modeling of the Active Site, Specificity Requirements, and Chloride Dependenceâ€. Biochemistry, 2003, 42, 13185-13192.	1.2	164
6	Crystal Structure of the N Domain of Human Somatic Angiotensin I-converting Enzyme Provides a Structural Basis for Domain-specific Inhibitor Design. Journal of Molecular Biology, 2006, 357, 964-974.	2.0	150
7	Molecular recognition and regulation of human angiotensin-I converting enzyme (ACE) activity by natural inhibitory peptides. Scientific Reports, 2012, 2, 717.	1.6	127
8	The Structure of Testis Angiotensin-Converting Enzyme in Complex with the C Domain-Specific Inhibitor RXPA380,. Biochemistry, 2007, 46, 5473-5478.	1.2	88
9	A continuous fluorescence resonance energy transfer angiotensin I-converting enzyme assay. Nature Protocols, 2006, 1, 1971-1976.	5.5	84
10	The N Domain of Human Angiotensin-I-converting Enzyme. Journal of Biological Chemistry, 2010, 285, 35685-35693.	1.6	76
11	Shedding of somatic angiotensin-converting enzyme (ACE) is inefficient compared with testis ACE despite cleavage at identical stalk sites. Biochemical Journal, 2000, 347, 711-718.	1.7	74
12	Identification of N-Linked Glycosylation Sites in Human Testis Angiotensin-converting Enzyme and Expression of an Active Deglycosylated Form. Journal of Biological Chemistry, 1997, 272, 3511-3519.	1.6	66
13	High-Resolution Crystal Structures of Drosophila melanogaster Angiotensin-Converting Enzyme in Complex with Novel Inhibitors and Antihypertensive Drugs. Journal of Molecular Biology, 2010, 400, 502-517.	2.0	65
14	Deglycosylation, processing and crystallization of human testis angiotensin-converting enzyme. Biochemical Journal, 2003, 371, 437-442.	1.7	64
15	Structure of Testis ACE Glycosylation Mutants and Evidence for Conserved Domain Movementâ€,â€¡. Biochemistry, 2006, 45, 12654-12663.	1.2	53
16	Probing the Basis of Domain-Dependent Inhibition Using Novel Ketone Inhibitors of Angiotensin-Converting Enzyme. Biochemistry, 2008, 47, 5942-5950.	1.2	53
17	A high-throughput fluorimetric assay for angiotensin I-converting enzyme. Nature Protocols, 2006, 1, 1961-1964.	5.5	49
18	ACE2 and ACE: structure-based insights into mechanism, regulation and receptor recognition by SARS-CoV. Clinical Science, 2020, 134, 2851-2871.	1.8	47

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19	The N domain of somatic angiotensin-converting enzyme negatively regulates ectodomain shedding and catalytic activity. Biochemical Journal, 2005, 389, 739-744.	1.7	43
20	Angiotensin-I converting enzyme (ACE): structure, biological roles, and molecular basis for chloride ion dependence. Biological Chemistry, 2014, 395, 1135-1149.	1.2	43
21	Investigating the Domain Specificity of Phosphinic Inhibitors RXPA380 and RXP407 in Angiotensin-Converting Enzyme. Biochemistry, 2009, 48, 8405-8412.	1.2	42
22	Prospects for SARS-CoV-2 diagnostics, therapeutics and vaccines in Africa. Nature Reviews Microbiology, 2020, 18, 690-704.	13.6	42
23	Characterization of domain-selective inhibitor binding in angiotensin-converting enzyme using a novel derivative of lisinopril. Biochemical Journal, 2010, 428, 67-74.	1.7	38
24	An Angiotensin I-Converting Enzyme Mutation (Y465D) Causes a Dramatic Increase in Blood ACE via Accelerated ACE Shedding. PLoS ONE, 2011, 6, e25952.	1.1	37
25	Modulation of Juxtamembrane Cleavage (â€œSheddingâ€) of Angiotensin-Converting Enzyme by Stalk Glycosylation:Á Evidence for an Alternative Shedding Proteaseâ€. Biochemistry, 1999, 38, 10388-10397.	1.2	36
26	Fragment-based design for the development of N-domain-selective angiotensin-1-converting enzyme inhibitors. Clinical Science, 2014, 126, 305-313.	1.8	36
27	Roles of the juxtamembrane and extracellular domains of angiotensin-converting enzyme in ectodomain shedding. Biochemical Journal, 2001, 358, 185-192.	1.7	35
28	Synthesis of novel keto-ACE analogues as domain-selective angiotensin I-converting enzyme inhibitors. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 4612-4615.	1.0	35
29	Synthesis and molecular modeling of a lisinoprilâ€“tryptophan analogue inhibitor of angiotensin I-converting enzyme. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 4616-4619.	1.0	34
30	Structural characterization of angiotensinâ€ƒIâ€converting enzyme in complex with a selenium analogue of captopril. FEBS Journal, 2011, 278, 3644-3650.	2.2	33
31	Positional-Scanning Combinatorial Libraries of Fluorescence Resonance Energy Transfer Peptides for Defining Substrate Specificity of the Angiotensin I-Converting Enzyme and Development of Selective C-Domain Substratesâ€. Biochemistry, 2004, 43, 15729-15736.	1.2	32
32	Limited Proteolysis of Human Kidney Angiotensin-Converting Enzyme and Generation of Catalytically Active N- and C-Terminal Domains. Biochemical and Biophysical Research Communications, 1997, 236, 16-19.	1.0	30
33	Localization of an N-Domain Region of Angiotensin-Converting Enzyme Involved in the Regulation of Ectodomain Shedding Using Monoclonal Antibodies. Journal of Proteome Research, 2005, 4, 258-267.	1.8	30
34	Molecular and Thermodynamic Mechanisms of the Chloride-dependent Human Angiotensin-I-converting Enzyme (ACE). Journal of Biological Chemistry, 2014, 289, 1798-1814.	1.6	29
35	Effects of a domain-selective ACE inhibitor in a mouse model of chronic angiotensin II-dependent hypertension. Clinical Science, 2014, 127, 57-63.	1.8	27
36	Crystal structures of highly specific phosphinic tripeptide enantiomers in complex with the angiotensinâ€‹<scp>I</scp> converting enzyme. FEBS Journal, 2014, 281, 943-956.	2.2	27

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37	Assignment of Free and Disulfide-Bonded Cysteine Residues in Testis Angiotensin-Converting Enzyme:Â Functional Implicationsâ€. Biochemistry, 1996, 35, 9560-9566.	1.2	26
38	Mapping of Conformational mAb Epitopes to the C Domain of Human Angiotensin I-Converting Enzyme. Journal of Proteome Research, 2008, 7, 3396-3411.	1.8	26
39	Interkingdom Pharmacology of Angiotensin-I Converting Enzyme Inhibitor Phosphonates Produced by Actinomycetes. ACS Medicinal Chemistry Letters, 2014, 5, 346-351.	1.3	26
40	Monoclonal Antibodies 1B3 and 5C8 as Probes for Monitoring the Integrity of the C-Terminal End of Soluble Angiotensin-Converting Enzyme. Hybridoma, 2005, 24, 14-26.	0.5	25
41	Established and novel pathophysiological mechanisms of pericardial injury and constrictive pericarditis. World Journal of Cardiology, 2018, 10, 87-96.	0.5	25
42	Simulated Interactions between Angiotensin-Converting Enzyme and Substrate Gonadotropin-Releasing Hormone:â€‰ Novel Insights into Domain Selectivity. Biochemistry, 2007, 46, 8753-8765.	1.2	24
43	Fine Epitope Mapping of Monoclonal Antibody 5F1 Reveals Anticatalytic Activity toward the N Domain of Human Angiotensin-Converting Enzyme. Biochemistry, 2007, 46, 9019-9031.	1.2	24
44	Pharmacodynamic effects of C-domain-specific ACE inhibitors on the renin-angiotensin system in myocardial infarcted rats. JRAAS - Journal of the Renin-Angiotensin-Aldosterone System, 2015, 16, 1149-1158.	1.0	24
45	Crystal structures of sampatrilat and sampatrilatâ€Asp in complex with human ACE â€“ a molecular basis for domain selectivity. FEBS Journal, 2018, 285, 1477-1490.	2.2	23
46	A study of crystal matrix extract and urinary prothrombin fragment 1 from a stone-prone and stone-free population. Urological Research, 2001, 29, 83-88.	1.5	22
47	Development of Domain-Selective Angiotensin I-Converting Enzyme Inhibitors. Annals of the New York Academy of Sciences, 2005, 1056, 160-175.	1.8	22
48	Molecular Basis for Multiple Omapatrilat Binding Sites within the ACE C-Domain: Implications for Drug Design. Journal of Medicinal Chemistry, 2018, 61, 10141-10154.	2.9	22
49	Structural basis of peptide recognition by the angiotensinâ€‹converting enzyme homologue An<scp>CE</scp> from <scp>D</scp>rosophilaÂmelanogaster. FEBS Journal, 2012, 279, 4525-4534.	2.2	21
50	Angiotensinâ€‹converting enzyme open for business: structural insights into the subdomain dynamics. FEBS Journal, 2021, 288, 2238-2256.	2.2	21
51	Defining the boundaries of the testis angiotensin I-converting enzyme ectodomain. Biochemical and Biophysical Research Communications, 2002, 297, 1225-1230.	1.0	20
52	The Design and Development of a Potent and Selective Novel Diprolyl Derivative That Binds to the N-Domain of Angiotensin-I Converting Enzyme. Journal of Medicinal Chemistry, 2018, 61, 344-359.	2.9	20
53	A Novel Angiotensin I-Converting Enzyme Mutation (S333W) Impairs N-Domain Enzymatic Cleavage of the Anti-Fibrotic Peptide, AcSDKP. PLoS ONE, 2014, 9, e88001.	1.1	19
54	Kinetic and structural characterization of amyloidâ€Î²2 peptide hydrolysis by human angiotensinâ€‹â€‹converting enzyme. FEBS Journal, 2016, 283, 1060-1076.	2.2	19

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55	Shedding of somatic angiotensin-converting enzyme (ACE) is inefficient compared with testis ACE despite cleavage at identical stalk sites. Biochemical Journal, 2000, 347, 711.	1.7	18
56	Structural basis of Ac-SDKP hydrolysis by Angiotensin-I converting enzyme. Scientific Reports, 2015, 5, 13742.	1.6	18
57	The influence of angiotensin converting enzyme mutations on the kinetics and dynamics of Nâ€domain selective inhibition. FEBS Journal, 2016, 283, 3941-3961.	2.2	18
58	Homologous substitution of ACE C-domain regions with N-domain sequences: effect on processing, shedding, and catalytic properties. Biological Chemistry, 2006, 387, 1043-51.	1.2	17
59	The role of glycosylation and domain interactions in the thermal stability of human angiotensin-converting enzyme. Biological Chemistry, 2008, 389, 1153-1161.	1.2	17
60	Scientific letter: Ac-SDKP (N-acetyl-seryl-aspartyl-lysyl-proline) and Galectin-3 levels in tuberculous pericardial effusion: implications for pathogenesis and prevention of pericardial constriction. Heart, 2012, 98, 1326.1-1328.	1.2	16
61	Structural basis for the C-domain-selective angiotensin-converting enzyme inhibition by bradykinin-potentiating peptide b (BPPb). Biochemical Journal, 2019, 476, 1553-1570.	1.7	16
62	Shedding the load of hypertension: The proteolytic processing of angiotensin-converting enzyme. South African Medical Journal, 2012, 102, 461.	0.2	14
63	Angiotensin-Converting Enzyme - New Insights into Structure, Biological Significance and Prospects for Domain-Selective Inhibitors. Current Enzyme Inhibition, 2009, 5, 134-147.	0.3	13
64	Peptidyl-Dipeptidase A/Angiotensin I-Converting Enzyme. , 2013, , 480-494.		13
65	Molecular Basis for Omapatrilat and Sampatrilat Binding to Neprilysinâ€"Implications for Dual Inhibitor Design with Angiotensin-Converting Enzyme. Journal of Medicinal Chemistry, 2020, 63, 5488-5500.	2.9	13
66	Novel ketomethylene inhibitors of angiotensin I-converting enzyme (ACE): inhibition and molecular modelling. Biological Chemistry, 2006, 387, 461-6.	1.2	12
67	Pharmacokinetic evaluation of lisinopril-tryptophan, a novel C-domain ACE inhibitor. European Journal of Pharmaceutical Sciences, 2014, 56, 113-119.	1.9	12
68	The Dynamic Nonprime Binding of Sampatrilat to the C-Domain of Angiotensin-Converting Enzyme. Journal of Chemical Information and Modeling, 2016, 56, 2486-2494.	2.5	12
69	Novel ACE mutations mimicking sarcoidosis by increasing blood ACE levels. Translational Research, 2021, 230, 5-20.	2.2	12
70	New ketomethylene inhibitor analogues: synthesis and assessment of structural determinants for N-domain selective inhibition of angiotensin-converting enzyme. Biological Chemistry, 2012, 393, 485-493.	1.2	11
71	ACE-domain selectivity extends beyond direct interacting residues at the active site. Biochemical Journal, 2020, 477, 1241-1259.	1.7	10
72	C domain-selective inhibition of angiotensin-converting enzyme. JRAAS - Journal of the Renin-Angiotensin-Aldosterone System, 2013, 14, 189-192.	1.0	9

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73	Antifibrotic peptide Nâ€acetylâ€Serâ€Aspâ€Lysâ€Pro (Acâ€<scp>SDKP</scp>): Opportunities for angiotensinâ€converting enzyme inhibitor design. Clinical and Experimental Pharmacology and Physiology, 2013, 40, 535-541.	0.9	7
74	Epitope mapping of novel monoclonal antibodies to human angiotensin Iâ€converting enzyme. Protein Science, 2021, 30, 1577-1593.	3.1	7
75	Selective Inhibition of the C-Domain of ACE (Angiotensin-Converting Enzyme) Combined With Inhibition of NEP (Neprilysin): A Potential New Therapy for Hypertension. Hypertension, 2021, 78, 604-616.	1.3	7
76	The effect of structural motifs on the ectodomain shedding of human angiotensin-converting enzyme. Biochemical and Biophysical Research Communications, 2016, 481, 111-116.	1.0	6
77	Structural basis for the inhibition of human angiotensinâ€1 converting enzyme by fosinoprilat. FEBS Journal, 2022, 289, 6659-6671.	2.2	5
78	Investigation into the Mechanism of Homo- and Heterodimerization of Angiotensin-Converting Enzyme. Molecular Pharmacology, 2018, 93, 344-354.	1.0	4
79	<scp>Cryoâ€EM</scp> reveals mechanisms of angiotensin Iâ€converting enzyme allostery and dimerization. EMBO Journal, 2022, 41, .	3.5	4
80	Characterisation of the flavin adenine dinucleotide binding region of Myxococcus xanthus protoporphyrinogen oxidase. Biochemistry and Biophysics Reports, 2015, 4, 306-311.	0.7	3
81	Interacting cogs in the machinery of the renin angiotensin system. Biophysical Reviews, 2019, 11, 583-589.	1.5	3
82	Probing the Requirements for Dual Angiotensin-Converting Enzyme C-Domain Selective/Neprilysin Inhibition. Journal of Medicinal Chemistry, 2022, 65, 3371-3387.	2.9	3
83	Investigating the antifibrotic potential of Nâ€acetyl serylâ€aspartylâ€lysylâ€proline sequence peptides. Clinical and Experimental Pharmacology and Physiology, 2021, 48, 1558-1565.	0.9	1
84	Phorbol Ester-Induced Juxtamembrane Cleavage of Angiotensin-Converting Enzyme is not Inhibited by a Disulfide-Bridged Stalk. Biochemical Society Transactions, 1999, 27, A56-A56.	1.6	0
85	The significance of the CÎ± substituent in the selective inhibition of matrix metalloproteinases 1 and 9. Biological Chemistry, 2011, 392, 1003-10.	1.2	0
86	Targeting the oncogenic TBX3:nucleolin complex to treat multiple sarcoma subtypes. American Journal of Cancer Research, 2021, 11, 5680-5700.	1.4	0