Adam Lesner

List of Publications by Year
in descending order

122 papers	2,281 citations	236925 25 h-index	330143 37 g-index
123 all docs	123 docs citations	123 times ranked	3038 citing authors

#	Article	IF	Citations
1	Antimicrobial peptides (AMPs) as drug candidates: a patent review (2003â€“2015). Expert Opinion on Therapeutic Patents, 2016, 26, 689-702.	5.0	134
2	Aggregated neutrophil extracellular traps resolve inflammation by proteolysis of cytokines and chemokines and protection from antiproteases. FASEB Journal, 2019, 33, 1401-1414.	0.5	90
3	Therapeutic targeting of cathepsin C: from pathophysiology to treatment. , 2018, 190, 202-236.		85
4	Fecal Serine Protease Profiling in Inflammatory Bowel Diseases. Frontiers in Cellular and Infection Microbiology, 2020, 10, 21.	3.9	62
5	Neutrophil proteinase 3 and dipeptidyl peptidase I (cathepsin C) as pharmacological targets in granulomatosis with polyangiitis (Wegener granulomatosis). Seminars in Immunopathology, 2013, 35, 411-421.	6.1	57
6	Myeloperoxidase Modulates Inflammation in Generalized Pustular Psoriasis and Additional Rare Pustular Skin Diseases. American Journal of Human Genetics, 2020, 107, 527-538.	6.2	53
7	Sunflower Trypsin Inhibitor 1 as a Molecular Scaffold for Drug Discovery. Current Pharmaceutical Design, 2011, 17, 4308-4317.	1.9	51
8	Lung Protection by Cathepsin C Inhibition: A New Hope for COVID-19 and ARDS?. Journal of Medicinal Chemistry, 2020, 63, 13258-13265.	6.4	49
9	Neutrophilic Cathepsin C Is Maturated by a Multistep Proteolytic Process and Secreted by Activated Cells during Inflammatory Lung Diseases. Journal of Biological Chemistry, 2016, 291, 8486-8499.	3.4	45
10	Substrate profiling of Zika virus <scp>NS</scp>2Bâ€<scp>NS</scp>3 protease. FEBS Letters, 2016, 590, 3459-3468.	2.8	45
11	Introduction of non-natural amino acid residues into the substrate-specific P1 position of trypsin inhibitor SFTI-1 yields potent chymotrypsin and cathepsin G inhibitors. Bioorganic and Medicinal Chemistry, 2009, 17, 3302-3307.	3.0	40
12	Surface plasmon resonance imaging biosensor for cathepsin G based on a potent inhibitor: Development and applications. Analytical Biochemistry, 2012, 423, 218-223.	2.4	38
13	New Selective Peptidyl Di(chlorophenyl) Phosphonate Esters for Visualizing and Blocking Neutrophil Proteinase 3 in Human Diseases. Journal of Biological Chemistry, 2014, 289, 31777-31791.	3.4	38
14	Properties of the HtrA Protease From Bacterium Helicobacter pylori Whose Activity Is Indispensable for Growth Under Stress Conditions. Frontiers in Microbiology, 2019, 10, 961.	3.5	36
15	Design of selective substrates of proteinase 3 using combinatorial chemistry methods. Analytical Biochemistry, 2008, 378, 208-215.	2.4	35
16	Structural and Functional Analysis of Human HtrA3 Protease and Its Subdomains. PLoS ONE, 2015, 10, e0131142.	2.5	35
17	Prolonged pharmacological inhibition of cathepsin C results in elimination of neutrophil serine proteases. Biochemical Pharmacology, 2017, 131, 52-67.	4.4	34
18	Temperature-induced changes of HtrA2(Omi) protease activity and structure. Cell Stress and Chaperones, 2013, 18, 35-51.	2.9	33

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19	Cathepsin G activity lowers plasma LDL and reduces atherosclerosis. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 2174-2183.	3.8	33
20	Identification of X-DING-CD4, a new member of human DING protein family that is secreted by HIV-1 resistant CD4+ T cells and has anti-viral activity. Biochemical and Biophysical Research Communications, 2009, 389, 284-289.	2.1	30
21	Inhibitors and Antibody Fragments as Potential Anti-Inflammatory Therapeutics Targeting Neutrophil Proteinase 3 in Human Disease. Pharmacological Reviews, 2016, 68, 603-630.	16.0	30
22	Biochemical and Structural Characterization of SplD Protease from Staphylococcus aureus. PLoS ONE, 2013, 8, e76812.	2.5	29
23	New chromogenic substrates of human neutrophil cathepsin G containing non-natural aromatic amino acid residues in position P1 selected by combinatorial chemistry methods. Molecular Diversity, 2007, 11, 93-99.	3.9	28
24	Design of serine proteinase inhibitors by combinatorial chemistry using trypsin inhibitor SFTIâ€1 as a starting structure. Journal of Peptide Science, 2007, 13, 749-755.	1.4	27
25	Substrate specificity and inhibitory study of human airway trypsin-like protease. Bioorganic and Medicinal Chemistry, 2010, 18, 5504-5509.	3.0	27
26	A Novel Biological Role for Peptidyl-Arginine Deiminases: Citrullination of Cathelicidin LL-37 Controls the Immunostimulatory Potential of Cell-Free DNA. Journal of Immunology, 2018, 200, 2327-2340.	0.8	27
27	Proteinase release from activated neutrophils in mechanically ventilated patients with non-COVID-19 and COVID-19 pneumonia. European Respiratory Journal, 2021, 57, 2003755.	6.7	27
28	Consequences of cathepsin C inactivation for membrane exposure of proteinase 3, the target antigen in autoimmune vasculitis. Journal of Biological Chemistry, 2018, 293, 12415-12428.	3.4	26
29	A Soluble Factor Secreted by an HIV-1-Resistant Cell Line Blocks Transcription through Inactivating the DNA-Binding Capacity of the NF-Î°B p65/p50 Dimer. Journal of Immunology, 2005, 175, 2548-2554.	0.8	24
30	Selection of New Chromogenic Substrates of Serine Proteinases Using Combinatorial Chemistry Methods. Combinatorial Chemistry and High Throughput Screening, 2007, 10, 171-180.	1.1	24
31	Application of specific cell permeable cathepsin G inhibitors resulted in reduced antigen processing in primary dendritic cells. Molecular Immunology, 2009, 46, 2994-2999.	2.2	24
32	Three Wavelength Substrate System of Neutrophil Serine Proteinases. Analytical Chemistry, 2012, 84, 7241-7248.	6.5	24
33	Substrate specificity of human matriptase-2. Biochimie, 2014, 97, 121-127.	2.6	23
34	Trypsin inhibitors from the garden four oâ€™clock (Mirabilis jalapa) and spinach (Spinacia oleracea) seeds: Isolation, characterization and chemical synthesis. Phytochemistry, 2007, 68, 1487-1496.	2.9	22
35	Implication of the disulfide bridge in trypsin inhibitor SFTI-1 in its interaction with serine proteinases. Bioorganic and Medicinal Chemistry, 2010, 18, 8188-8193.	3.0	22
36	The LA Loop as an Important Regulatory Element of the HtrA (DegP) Protease from Escherichia coli. Journal of Biological Chemistry, 2014, 289, 15880-15893.	3.4	22

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37	Lactoferrin Is an Allosteric Enhancer of the Proteolytic Activity of Cathepsin G. PLoS ONE, 2016, 11, e0151509.	2.5	22
38	New potent cathepsin G phosphonate inhibitors. Bioorganic and Medicinal Chemistry, 2008, 16, 8863-8867.	3.0	21
39	Inhibitors of cathepsin G: a patent review (2005 to present). Expert Opinion on Therapeutic Patents, 2013, 23, 1611-1624.	5.0	21
40	Structure-based design and in vivo anti-arthritic activity evaluation of a potent dipeptidyl cyclopropyl nitrile inhibitor of cathepsin C. Biochemical Pharmacology, 2019, 164, 349-367.	4.4	21
41	Monoubiquitinated Histone H1B Is Required for Antiviral Protection in CD4+T Cells Resistant to HIV-1â€. Biochemistry, 2004, 43, 16203-16211.	2.5	20
42	Substrate specificity of Staphylococcus aureus cysteine proteases â€“ Staphopains A, B and C. Biochimie, 2012, 94, 318-327.	2.6	20
43	Cathepsin G deficiency reduces periaortic calcium chloride injury-induced abdominal aortic aneurysms in mice. Journal of Vascular Surgery, 2015, 62, 1615-1624.	1.1	20
44	Induction of Secreted Human Immunodeficiency Virus Type 1 (HIV-1) Resistance Factors in CD4-Positive T Lymphocytes by Attenuated HIV-1 Infection. Virology, 2002, 294, 1-12.	2.4	19
45	Synthesis and Evaluation of Biological Activity of Antimicrobial â€“ Pro-Proliferative Peptide Conjugates. PLoS ONE, 2015, 10, e0140377.	2.5	19
46	Bile Acids: Key Players in Inflammatory Bowel Diseases?. Cells, 2022, 11, 901.	4.1	19
47	Design, Chemical Synthesis and Kinetic Studies of Trypsin Chromogenic Substrates Based on the Proteinase Binding Loop of Cucurbita maxima Trypsin Inhibitor (CMTI-III). Biochemical and Biophysical Research Communications, 2000, 269, 81-84.	2.1	18
48	Inhibitory and antimicrobial activities of OGTI and HV-BBI peptides, fragments and analogs derived from amphibian skin. Peptides, 2012, 35, 276-284.	2.4	18
49	A new proteinase 3 substrate with improved selectivity over human neutrophil elastase. Analytical Biochemistry, 2013, 442, 75-82.	2.4	18
50	Intra- and intersubunit changes accompanying thermal activation of the HtrA2(Omi) protease homotrimer. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 283-296.	2.3	18
51	Synthesis of Novel Phosphonicâ€Type Activityâ€Based Probes for Neutrophil Serine Proteases and Their Application in Spleen Lysates of Different Organisms. ChemBioChem, 2014, 15, 2605-2612.	2.6	17
52	Inhibition of HIVâ€1 or bacterial activation of macrophages by products of HIVâ€1â€resistant human cells. Immunology and Cell Biology, 2007, 85, 603-609.	2.3	16
53	Peptomeric analogues of trypsin inhibitor SFTI-1 isolated from sunflower seeds. Bioorganic and Medicinal Chemistry, 2008, 16, 5644-5652.	3.0	16
54	Selection of peptomeric inhibitors of bovine Î±-chymotrypsin and cathepsin G based on trypsin inhibitor SFTI-1 using a combinatorial chemistry approach. Molecular Diversity, 2010, 14, 51-58.	3.9	16

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55	Chromogenic Substrates of Bovine Î²-Trypsin: The Influence of an Amino Acid Residue in P1 Position on Their Interaction with the Enzyme. Biochemical and Biophysical Research Communications, 2001, 285, 1350-1353.	2.1	15
56	Microarray analysis of differentially expressed genes in cells resistant to HIV-1. Immunology Letters, 2004, 93, 79-86.	2.5	15
57	Development of sensitive cathepsin G fluorogenic substrate using combinatorial chemistry methods. Analytical Biochemistry, 2008, 375, 306-312.	2.4	15
58	The new fluorogenic substrates of neutrophil proteinase 3 optimized in prime site region. Analytical Biochemistry, 2010, 399, 196-201.	2.4	15
59	Development of Chemical Tools to Monitor Human Kallikrein 13 (KLK13) Activity. International Journal of Molecular Sciences, 2019, 20, 1557.	4.1	15
60	Future of Protease Activity Assays. Current Pharmaceutical Design, 2012, 19, 1062-1067.	1.9	15
61	A simple method for selection of trypsin chromogenic substrates using combinatorial chemistry approach. Biochemical and Biophysical Research Communications, 2004, 319, 185-188.	2.1	14
62	Inhibition of Human and Yeast 20S Proteasome by Analogues of Trypsin Inhibitor SFTI-1. PLoS ONE, 2014, 9, e89465.	2.5	14
63	Analysis of urinary cathepsin C for diagnosing Papillonâ€“LefÃ¨vre syndrome. FEBS Journal, 2016, 283, 498-509.	4.7	14
64	Development of the first internally-quenched fluorescent substrates of human cathepsin C: The application in the enzyme detection in biological samples. Archives of Biochemistry and Biophysics, 2016, 612, 91-102.	3.0	14
65	Exploiting the S4â€“S5 Specificity of Human Neutrophil Proteinase 3 to Improve the Potency of Peptidyl Di(chlorophenyl)-phosphonate Ester Inhibitors: A Kinetic and Molecular Modeling Analysis. Journal of Medicinal Chemistry, 2018, 61, 1858-1870.	6.4	14
66	Determination of cathepsin G in endometrial tissue using a surface plasmon resonance imaging biosensor with tailored phosphonic inhibitor. European Journal of Obstetrics, Gynecology and Reproductive Biology, 2014, 182, 38-42.	1.1	13
67	Simplified, serineâ€rich thetaâ€defensin analogues as antitumour peptides. Chemical Biology and Drug Design, 2017, 90, 52-63.	3.2	13
68	The molecular function of kallikreinâ€related peptidase 14 demonstrates a key modulatory role in advanced prostate cancer. Molecular Oncology, 2020, 14, 105-128.	4.6	13
69	Ultrasensitive internally quenched substrates of human cathepsin L. Analytical Biochemistry, 2014, 466, 30-37.	2.4	12
70	Bladder cancer detection using a peptide substrate of the 20S proteasome. FEBS Journal, 2016, 283, 2929-2948.	4.7	12
71	Biochemical properties of the HtrA homolog from bacterium Stenotrophomonas maltophilia. International Journal of Biological Macromolecules, 2018, 109, 992-1005.	7.5	12
72	Processing and Maturation of Cathepsin C Zymogen: A Biochemical and Molecular Modeling Analysis. International Journal of Molecular Sciences, 2019, 20, 4747.	4.1	12

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73	Cathepsin C is a novel mediator of podocyte and renal injury induced by hyperglycemia. Biochimica Et Biophysica Acta - Molecular Cell Research, 2020, 1867, 118723.	4.1	12
74	Distance between the Basic Group of the Amino Acid Residue's Side Chain in Position P1of Trypsin Inhibitor CMTI-III and Asp189in the Substrate Pocket of Trypsin Has an Essential Influence on the Inhibitory Activity. Biochemical and Biophysical Research Communications, 1997, 240, 869-871.	2.1	11
75	Inhibitory activity of doubleâ€sequence analogues of trypsin inhibitor SFTIâ€1 from sunflower seeds: an example of peptide splicing. FEBS Journal, 2010, 277, 2351-2359.	4.7	10
76	Analysis of the Link between the Redox State and Enzymatic Activity of the HtrA (DegP) Protein from Escherichia coli. PLoS ONE, 2015, 10, e0117413.	2.5	10
77	PEGylated substrates of NSP4 protease: A tool to study protease specificity. Scientific Reports, 2016, 6, 22856.	3.3	10
78	Design, Synthesis, and Enzymatic Evaluation of Novel ZnO Quantum Dot-Based Assay for Detection of Proteinase 3 Activity. Bioconjugate Chemistry, 2018, 29, 1576-1583.	3.6	10
79	Kallikrein 13 serves as a priming protease during infection by the human coronavirus HKU1. Science Signaling, 2020, 13, .	3.6	10
80	Digestive Inflammation: Role of Proteolytic Dysregulation. International Journal of Molecular Sciences, 2021, 22, 2817.	4.1	10
81	Gut Serpinome: Emerging Evidence in IBD. International Journal of Molecular Sciences, 2021, 22, 6088.	4.1	10
82	The influence of substrate peptide length on human Î²â€tryptase specificity. Journal of Peptide Science, 2008, 14, 917-923.	1.4	9
83	Fluorescent analogs of trypsin inhibitor SFTIâ€1 isolated from sunflower seedsâ€"synthesis and applications. Biopolymers, 2014, 102, 124-135.	2.4	9
84	The role of the LB structural loop and its interactions with the PDZ domain of the human HtrA3 protease. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 1141-1151.	2.3	9
85	Conjugate of Enkephalin and Temporin Peptides as a Novel Therapeutic Agent for Sepsis. Bioconjugate Chemistry, 2018, 29, 4127-4139.	3.6	9
86	The Bactericidal Activity of Temporin Analogues Against Methicillin Resistant Staphylococcus aureus. International Journal of Molecular Sciences, 2019, 20, 4761.	4.1	9
87	Analogues of Trypsin Inhibitor SFTI-1 with Disulfide Bridge Substituted by Various Length of Carbonyl Bridges. Protein and Peptide Letters, 2010, 17, 1223-1227.	0.9	8
88	The <scp>LD</scp> loop as an important structural element required for transmission of the allosteric signal in the HtrA (DegP) protease from Escherichia coli. FEBS Journal, 2016, 283, 3471-3487.	4.7	8
89	One Step Beyond: Design of Substrates Spanning Primed Positions of Zika Virus NS2B-NS3 Protease. ACS Medicinal Chemistry Letters, 2018, 9, 1025-1029.	2.8	8
90	Highly Specific Substrates of Proteinase 3 Containing 3-(2-Benzoxazol-5-yl)-<scp>l</scp>-alanine and Their Application for Detection of This Enzyme in Human Serum. Analytical Chemistry, 2010, 82, 3883-3889.	6.5	7

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91	Hybrid analogues of SFTIâ€1 modified in P₁ position by Î²â€•and Î³â€amino acids and Nâ€substituted Î²â€alanines. Biopolymers, 2013, 100, 154-159.	2.4	7
92	Novel internally quenched substrate of the trypsin-like subunit of 20S eukaryotic proteasome. Analytical Biochemistry, 2016, 508, 38-45.	2.4	7
93	Proteinase 3 phosphonic inhibitors. Biochimie, 2019, 166, 142-149.	2.6	7
94	Substrate profiling of Finegoldia magna SufA protease, inhibitor screening and application to prevent human fibrinogen degradation and bacteria growth inÂvitro. Biochimie, 2014, 103, 137-143.	2.6	6
95	Structural Determinants of Substrate Specificity of SplF Protease from Staphylococcus aureus. International Journal of Molecular Sciences, 2021, 22, 2220.	4.1	6
96	Designing of Substrates and Inhibitors of Bovine α-Chymotrypsin with Synthetic Phenylalanine Analogues in Position P1. Protein and Peptide Letters, 2008, 15, 260-264.	0.9	5
97	Kallikrein-Related Peptidase 14 Activates Zymogens of Membrane Type Matrix Metalloproteinases (MT-MMPs)â€"A CleavEx Based Analysis. International Journal of Molecular Sciences, 2020, 21, 4383.	4.1	5
98	Introduction of Pro and Its Analogues in the Conserved P1 Position of Trypsin Inhibitor SFTI-1 Retains Its Inhibitory Activity. Protein and Peptide Letters, 2011, 18, 1158-1167.	0.9	4
99	Design and synthesis of new substrates of HtrA2 protease. Analytical Biochemistry, 2015, 475, 44-52.	2.4	4
100	A Peptidomimetic Fluorescent Probe to Detect the Trypsin Î²2 Subunit of the Human 20S Proteasome. International Journal of Molecular Sciences, 2020, 21, 2396.	4.1	4
101	Nonâ€Proteasomal Urine Activity in Bladder Cancer. Chemistry and Biodiversity, 2021, 18, e2000981.	2.1	4
102	Elastolytic activity is associated with inflammation in bladder cancer. Journal of Biochemistry, 2021, 170, 547-558.	1.7	4
103	SP-1, a Serine Protease from the Gut Microbiota, Influences Colitis and Drives Intestinal Dysbiosis in Mice. Cells, 2021, 10, 2658.	4.1	4
104	Pegylated Fluorescent Peptides as Substrates of Proteolytic Enzymes. Protein and Peptide Letters, 2012, 19, 1237-1244.	0.9	3
105	Activity-based protein profiling guided identification of urine proteinase 3 activity in subclinical rejection after renal transplantation. Clinical Proteomics, 2020, 17, 23.	2.1	3
106	Human proteinase 3 resistance to inhibition extends to alphaâ€2 macroglobulin. FEBS Journal, 2020, 287, 4068-4081.	4.7	3
107	Low-Molecular-Weight Aldehyde Inhibitors of Cathepsin G. Protein and Peptide Letters, 2009, 16, 408-410.	0.9	2
108	Lipidation of Temporin-1CEb Derivatives as a Tool for Activity Improvement, Pros and Cons of the Approach. International Journal of Molecular Sciences, 2021, 22, 6679.	4.1	2

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109	Theoretical Investigation of the Coronavirus SARS-CoV-2 (COVID-19) Infection Mechanism and Selectivity. Molecules, 2022, 27, 2080.	3.8	2
110	Synthesis, activity on NK-3 tachykinin receptor and conformational solution studies of scyliorhinin II analogs modified at position 16. Chemical Biology and Drug Design, 2001, 58, 159-172.	1.1	1
111	Conformational studies of [Nphe5]SFTI-1 by means of 2D NMR spectroscopy in conjunction with molecular dynamics calculations. Journal of Molecular Structure, 2015, 1100, 203-207.	3.6	1
112	Selection of Effective HTRA3 Activators Using Combinatorial Chemistry. ACS Combinatorial Science, 2017, 19, 565-573.	3.8	1
113	Novel Cell Permeable Polymers of N-Substituted L-2,3-Diaminopropionic Acid (DAPEGs) and Cellular Consequences of Their Interactions with Nucleic Acids. International Journal of Molecular Sciences, 2021, 22, 2571.	4.1	1
114	Analysis of urinary kallikrein-related peptidase 13 for monitoring bladder cancer. Biomarkers, 2021, 26, 1-30.	1.9	1
115	Detection of ADAM15 in urine from patients with bladder cancer. Analytical Biochemistry, 2022, 654, 114805.	2.4	1
116	Editorial(Hot Topic: Proteolysis in Health and Disease). Current Pharmaceutical Design, 2012, 19, 965-965.	1.9	0
117	Peptidic Inhibitors of Serine Proteinases of Plant Origin. , 2013, , 187-204.		0
118	Microarrays and Dynamics of Fluorescent Dyes. , 2013, , 165-178.		0
119	Adrenal Secretory Protease. , 2013, , 2983-2985.		0
120	NEW SELECTIVE PEPTIDYL DI(CHLOROPHENYL)â€PHOSPHONATE ESTERS TO VISUALIZE AND BLOCK NEUTROPHIL PROTEINASE 3 IN HUMAN DISEASES. FASEB Journal, 2015, 29, 1022.2.	0.5	0
121	Simplified Theta-defensin [Ser3,7,12,16] RTD-2 Analog Is Involved in Proteasomal Degradation Pathway in Breast Cancer. Anticancer Research, 2021, 41, 5415-5423.	1.1	0
122	Chemical tools to monitor bladder cancer progression. Biomarkers, 2022, 27, 568-578.	1.9	0