Richard Leduc

List of Publications by Year
in descending order

95	4,063	87888	128289
papers	citations	38 h-index	60 g-index

96	96	96	4682
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Processing of Transforming Growth Factor Î²1 Precursor by Human Furin Convertase. Journal of Biological Chemistry, 1995, 270, 10618-10624.	3.4	341
2	Characterization of ADAMTS-9 and ADAMTS-20 as a Distinct ADAMTS Subfamily Related to Caenorhabditis elegans GON-1. Journal of Biological Chemistry, 2003, 278, 9503-9513.	3.4	288
3	Evidence that Furin Is an Authentic Transforming Growth Factor-Î²1-Converting Enzyme. American Journal of Pathology, 2001, 158, 305-316.	3.8	220
4	Characterization of METH-1/ADAMTS1 Processing Reveals Two Distinct Active Forms. Journal of Biological Chemistry, 2000, 275, 33471-33479.	3.4	131
5	Aï»¿ TMPRSS2 inhibitor acts as a pan-SARS-CoV-2 prophylactic and therapeutic. Nature, 2022, 605, 340-348.	27.8	108
6	Functional selectivity profiling of the angiotensin II type 1 receptor using pathway-wide BRET signaling sensors. Science Signaling, 2018, 11, .	3.6	106
7	Discovery and Structureâ€“Activity Relationship of a Bioactive Fragment of ELABELA that Modulates Vascular and Cardiac Functions. Journal of Medicinal Chemistry, 2016, 59, 2962-2972.	6.4	100
8	Characterization of proADAMTS5 processing by proprotein convertases. International Journal of Biochemistry and Cell Biology, 2009, 41, 1116-1126.	2.8	96
9	Processing of proendothelinâ€1 by human furin convertase. FEBS Letters, 1995, 362, 276-280.	2.8	91
10	Conjugation of a brain-penetrant peptide with neurotensin provides antinociceptive properties. Journal of Clinical Investigation, 2014, 124, 1199-1213.	8.2	88
11	ADAMTS7B, the Full-length Product of the ADAMTS7 Gene, Is a Chondroitin Sulfate Proteoglycan Containing a Mucin Domain. Journal of Biological Chemistry, 2004, 279, 35159-35175.	3.4	87
12	Probing the substrate specificities of matriptase, matriptaseâ€2, hepsin and DESC1 with internally quenched fluorescent peptides. FEBS Journal, 2009, 276, 2213-2226.	4.7	85
13	A Polyaromatic Caveolin-Binding-Like Motif in the Cytoplasmic Tail of the Type 1 Receptor for Angiotensin II Plays an Important Role in Receptor Trafficking and Signaling. Endocrinology, 2002, 143, 4702-4710.	2.8	83
14	Role of N-Glycosylation in the Expression and Functional Properties of Human AT1 Receptor. Biochemistry, 1999, 38, 8621-8627.	2.5	72
15	Furin/PACE/SPC1: A convertase involved in exocytic and endocytic processing of precursor proteins. FEBS Letters, 1996, 379, 113-116.	2.8	67
16	Matriptase Proteolytically Activates Influenza Virus and Promotes Multicycle Replication in the Human Airway Epithelium. Journal of Virology, 2013, 87, 4237-4251.	3.4	67
17	Elucidation of the Structureâ€“Activity Relationships of Apelin: Influence of Unnatural Amino Acids on Binding, Signaling, and Plasma Stability. ChemMedChem, 2012, 7, 318-325.	3.2	66
18	PACE4: a subtilisin-like endoprotease with unique properties. Biochemical Journal, 1997, 321, 587-593.	3.7	64

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19	Determining the Environment of the Ligand Binding Pocket of the Human Angiotensin II Type I (hAT1) Receptor Using the Methionine Proximity Assay. Journal of Biological Chemistry, 2005, 280, 27121-27129.	3.4	60
20	Regulation of ADAMTS9 Secretion and Enzymatic Activity by Its Propeptide. Journal of Biological Chemistry, 2007, 282, 16146-16154.	3.4	58
21	Design and Synthesis of Potent, Selective Inhibitors of Matriptase. ACS Medicinal Chemistry Letters, 2012, 3, 530-534.	2.8	57
22	Importance of N-glycosylation positioning for cell-surface expression, targeting, affinity and quality control of the human AT1 receptor. Biochemical Journal, 2005, 390, 367-376.	3.7	55
23	Cell-surface Processing of Pro-ADAMTS9 by Furin. Journal of Biological Chemistry, 2006, 281, 12485-12494.	3.4	55
24	Constitutive Activation of the Angiotensin II Type 1 Receptor Alters the Spatial Proximity of Transmembrane 7 to the Ligand-binding Pocket. Journal of Biological Chemistry, 2003, 278, 36628-36636.	3.4	53
25	Matriptase Protects Against Experimental Colitis and Promotes Intestinal Barrier Recovery. Inflammatory Bowel Diseases, 2012, 18, 1303-1314.	1.9	51
26	The signaling signature of the neurotensin type 1 receptor with endogenous ligands. European Journal of Pharmacology, 2017, 805, 1-13.	3.5	51
27	Targeting matriptase in breast cancer abrogates tumour progression via impairment of stromal-epithelial growth factor signalling. Nature Communications, 2015, 6, 6776.	12.8	50
28	Prostasin Is Required for Matriptase Activation in Intestinal Epithelial Cells to Regulate Closure of the Paracellular Pathway. Journal of Biological Chemistry, 2013, 288, 10328-10337.	3.4	49
29	Mutation G827R in Matriptase Causing Autosomal Recessive Ichthyosis with Hypotrichosis Yields an Inactive Protease. Journal of Biological Chemistry, 2008, 283, 10535-10542.	3.4	48
30	C-Terminal Modifications of Apelin-13 Significantly Change Ligand Binding, Receptor Signaling, and Hypotensive Action. Journal of Medicinal Chemistry, 2015, 58, 2431-2440.	6.4	48
31	Cleavage Specificity Analysis of Six Type II Transmembrane Serine Proteases (TTSPs) Using PICS with Proteome-Derived Peptide Libraries. PLoS ONE, 2014, 9, e105984.	2.5	46
32	Photolabelling the rat urotensin II/GPR14 receptor identifies a ligand-binding site in the fourth transmembrane domain. Biochemical Journal, 2003, 370, 829-838.	3.7	44
33	Biological properties and functional determinants of the urotensin II receptor. Peptides, 2008, 29, 691-699.	2.4	44
34	Proteinase-activated Receptor-2 Induces Cyclooxygenase-2 Expression through Î²-Catenin and Cyclic AMP-response Element-binding Protein. Journal of Biological Chemistry, 2008, 283, 809-815.	3.4	42
35	Structure of the Human Angiotensin II Type 1 (AT1) Receptor Bound to Angiotensin II from Multiple Chemoselective Photoprobe Contacts Reveals a Unique Peptide Binding Mode. Journal of Biological Chemistry, 2013, 288, 8187-8197.	3.4	42
36	Biased signaling regulates the pleiotropic effects of the urotensin II receptor to modulate its cellular behaviors. FASEB Journal, 2014, 28, 5148-5162.	0.5	41

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37	Analysis of the Third Transmembrane Domain of the Human Type 1 Angiotensin II Receptor by Cysteine Scanning Mutagenesis. Journal of Biological Chemistry, 2004, 279, 51415-51423.	3.4	40
38	Identification of Prodomain Determinants Involved in ADAMTS-1 Biosynthesis. Journal of Biological Chemistry, 2004, 279, 33237-33245.	3.4	39
39	Inhibition of human matriptase by eglin c variants. FEBS Letters, 2006, 580, 2227-2232.	2.8	36
40	Serpin-like properties of Î±1-antitrypsin Portland towards furin convertase. FEBS Letters, 1998, 426, 41-46.	2.8	33
41	Role of N-glycan-dependent quality control in the cell-surface expression of the AT1 receptor. Biochemical and Biophysical Research Communications, 2006, 340, 395-402.	2.1	31
42	Analysis of Subpocket Selectivity and Identification of Potent Selective Inhibitors for Matriptase and Matriptase-2. Journal of Medicinal Chemistry, 2014, 57, 10198-10204.	6.4	31
43	Synthesis and Characterization in Vitro and in Vivo of (<scp>l</scp>)-(Trimethylsilyl)alanine Containing Neurotensin Analogues. Journal of Medicinal Chemistry, 2015, 58, 7785-7795.	6.4	30
44	The Contribution of Arginine Residues within the P6â€“P1 Region of Î±1-Antitrypsin to Its Reaction with Furin. Journal of Biological Chemistry, 2001, 276, 38971-38979.	3.4	28
45	Identification of Distinct Conformations of the Angiotensin-II Type 1 Receptor Associated with the Gq/11 Protein Pathway and the Î²-Arrestin Pathway Using Molecular Dynamics Simulations. Journal of Biological Chemistry, 2015, 290, 15835-15854.	3.4	27
46	Structureâ€“activity relationship of novel macrocyclic biased apelin receptor agonists. Organic and Biomolecular Chemistry, 2017, 15, 449-458.	2.8	27
47	The serine proteinase hepsin is an activator of pro-matrix metalloproteinases: molecular mechanisms and implications for extracellular matrix turnover. Scientific Reports, 2017, 7, 16693.	3.3	27
48	Processing of Proendothelin-1 at the C-Terminus of Big Endothelin-1 is Essential for Proteolysis by Endothelin-Converting Enzyme-1 in vivo. FEBS Journal, 1997, 244, 520-526.	0.2	26
49	Activation of the Angiotensin II Type 1 Receptor Leads to Movement of the Sixth Transmembrane Domain: Analysis by the Substituted Cysteine Accessibility Method. Molecular Pharmacology, 2007, 72, 182-190.	2.3	26
50	Characterization of Angiotensin II Molecular Determinants Involved in AT₁ Receptor Functional Selectivity. Molecular Pharmacology, 2015, 87, 982-995.	2.3	26
51	Ectodomain shedding of furin: kinetics and role of the cysteineâ€rich region. FEBS Letters, 2002, 527, 309-314.	2.8	25
52	Down-Regulation of Inositol 1,4,5-Trisphosphate Receptor in Cells Stably Expressing the Constitutively Active Angiotensin II N111G-AT1 Receptor. Molecular Endocrinology, 2004, 18, 2967-2980.	3.7	25
53	Discovery and Development of TMPRSS6 Inhibitors Modulating Hepcidin Levels in Human Hepatocytes. Cell Chemical Biology, 2019, 26, 1559-1572.e9.	5.2	25
54	Structural Optimization and Characterization of Potent Analgesic Macrocyclic Analogues of Neurotensin (8â€“13). Journal of Medicinal Chemistry, 2018, 61, 7103-7115.	6.4	24

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55	The hypotensive effect of activated apelin receptor is correlated with Î²-arrestin recruitment. Pharmacological Research, 2018, 131, 7-16.	7.1	23
56	Essential Role of Endocytosis of the Type II Transmembrane Serine Protease TMPRSS6 in Regulating Its Functionality. Journal of Biological Chemistry, 2011, 286, 29035-29043.	3.4	22
57	Mutational Analysis of the Conserved Asp^{2.50}and ERY Motif Reveals Signaling Bias of the Urotensin II Receptor. Molecular Pharmacology, 2008, 74, 552-561.	2.3	21
58	Matriptase regulates c-Met mediated proliferation and invasion in inflammatory breast cancer. Oncotarget, 2016, 7, 58162-58173.	1.8	21
59	Comparative Characterization of Two Forms of Recombinant Human SPC1 Secreted from Schneider 2 Cells. Protein Expression and Purification, 2000, 19, 113-124.	1.3	20
60	Design, synthesis, and biological evaluation of CXCR4 ligands. Organic and Biomolecular Chemistry, 2016, 14, 10298-10311.	2.8	19
61	Photolabeling identifies transmembrane domain 4 of CXCR4 as a T140 binding site. Biochemical Pharmacology, 2009, 78, 1382-1390.	4.4	18
62	The type II transmembrane serine protease matriptase cleaves the amyloid precursor protein and reduces its processing to Î²-amyloid peptide. Journal of Biological Chemistry, 2017, 292, 20669-20682.	3.4	18
63	Identification of furin pro-region determinants involved in folding and activation. Biochemical Journal, 2004, 379, 757-763.	3.7	17
64	Involvement of a cytoplasmic-tail serine cluster in urotensin II receptor internalization. Biochemical Journal, 2005, 385, 115-123.	3.7	17
65	Critical Hydrogen Bond Formation for Activation of the Angiotensin II Type 1 Receptor. Journal of Biological Chemistry, 2013, 288, 2593-2604.	3.4	17
66	Modulating the selectivity of matriptase-2 inhibitors with unnatural amino acids. European Journal of Medicinal Chemistry, 2017, 129, 110-123.	5.5	17
67	Inhibitors of type II transmembrane serine proteases in the treatment of diseases of the respiratory tract â€“ A review of patent literature. Expert Opinion on Therapeutic Patents, 2020, 30, 807-824.	5.0	17
68	Matriptase Induction of MetalloproteinaseâEDependent Aggrecanolysis In Vitro and In Vivo: Promotion of Osteoarthritic Cartilage Damage by Multiple Mechanisms. Arthritis and Rheumatology, 2017, 69, 1601-1611.	5.6	16
69	Photolabelling the urotensin II receptor reveals distinct agonist- and partial-agonist-binding sites. Biochemical Journal, 2007, 402, 51-61.	3.7	15
70	The Fifth Transmembrane Domain of Angiotensin II Type 1 Receptor Participates in the Formation of the Ligand-binding Pocket and Undergoes a Counterclockwise Rotation upon Receptor Activation. Journal of Biological Chemistry, 2009, 284, 31953-31961.	3.4	15
71	The Second Transmembrane Domain of the Human Type 1 Angiotensin II Receptor Participates in the Formation of the Ligand Binding Pocket and Undergoes Integral Pivoting Movement during the Process of Receptor Activation. Journal of Biological Chemistry, 2009, 284, 11922-11929.	3.4	13
72	Functional diversity of TMPRSS6 isoforms and variants expressed in hepatocellular carcinoma cell lines. Scientific Reports, 2018, 8, 12562.	3.3	12

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73	Stability of mutant serpin/furin complexes: Dependence on pH and regulation at the deacylation step. Protein Science, 2005, 14, 303-315.	7.6	11
74	Identification of transmembrane domain 6 & 7 residues that contribute to the binding pocket of the urotensin II receptor. Biochemical Pharmacology, 2009, 77, 1374-1382.	4.4	11
75	Signaling pathways induced by serine proteases to increase intestinal epithelial barrier function. PLoS ONE, 2017, 12, e0180259.	2.5	11
76	Transcriptome analysis reveals TMPRSS6 isoforms with distinct functionalities. Journal of Cellular and Molecular Medicine, 2018, 22, 2498-2509.	3.6	11
77	GÎ±s protein binds ubiquitin to regulate epidermal growth factor receptor endosomal sorting. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13477-13482.	7.1	10
78	In Search of the Optimal Macrocyclization Site for Neurotensin. ACS Medicinal Chemistry Letters, 2018, 9, 227-232.	2.8	10
79	GRK2 knockdown in mice exacerbates kidney injury and alters renal mechanisms of blood pressure regulation. Scientific Reports, 2018, 8, 11415.	3.3	10
80	Angiotensin II cyclic analogs as tools to investigate AT1R biased signaling mechanisms. Biochemical Pharmacology, 2018, 154, 104-117.	4.4	9
81	Interplay between intracellular loop 1 and helix VIII of the angiotensin II type 2 receptor controls its activation. Biochemical Pharmacology, 2019, 168, 330-338.	4.4	9
82	Convergent selective signaling impairment exposes the pathogenicity of latrophilin-3 missense variants linked to inheritable ADHD susceptibility. Molecular Psychiatry, 2022, 27, 2425-2438.	7.9	8
83	Identification of transmembrane domain 3, 4 & 5 residues that contribute to the formation of the ligand-binding pocket of the urotensin-II receptor. Biochemical Pharmacology, 2013, 86, 1584-1593.	4.4	7
84	Structureâ€“Activity Relationship and Signaling of New Chimeric CXCR4 Agonists. Journal of Medicinal Chemistry, 2016, 59, 7512-7524.	6.4	7
85	Exploration of the fifth position of leuâ€enkephalin and its role in binding and activating delta (DOP) and mu (MOP) opioid receptors. Peptide Science, 2019, 111, e24070.	1.8	7
86	Desensitization of AT1 Receptor-Mediated Cellular Responses Requires Long Term Receptor Down-Regulation in Bovine Adrenal Glomerulosa Cells. Endocrinology, 1997, 138, 3828-3835.	2.8	7
87	Synthesis and Evaluation of a ⁶⁴Cu-Conjugate, a Selective Î´-Opioid Receptor Positron Emission Tomography Imaging Agent. Organic Letters, 2017, 19, 2018-2021.	4.6	6
88	Analysis by substituted cysteine scanning mutagenesis of the fourth transmembrane domain of the CXCR4 receptor in its inactive and active state. Biochemical Pharmacology, 2013, 85, 541-550.	4.4	5
89	Label-free cell signaling pathway deconvolution of angiotensin type 1 receptor reveals time-resolved G-protein activity and distinct AngII and AngIIIIV responses. Pharmacological Research, 2018, 136, 108-120.	7.1	5
90	Identification of transmembrane domain 1 & 2 residues that contribute to the formation of the ligand-binding pocket of the urotensin-II receptor. Biochemical Pharmacology, 2014, 92, 280-288.	4.4	4

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91	Matriptase processing of APLP1 ectodomain alters its homodimerization. Scientific Reports, 2020, 10, 10091.	3.3	3
92	Influence of Ca2+and pH on the folding of the prourotensin II precursor. FEBS Letters, 2011, 585, 1910-1914.	2.8	2
93	Monitoring TRPC7 Conformational Changes by BRET Following GPCR Activation. International Journal of Molecular Sciences, 2022, 23, 2502.	4.1	1
94	GÎ±s protein binds ubiquitin to regulate endosomal sorting. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, PO1-13-23.	0.0	0
95	Interaction between TRPs and GPCRs as a basis for developing TRP biosensors. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, PO1-12-1.	0.0	0