Christoph Becker-Pauly

List of Publications by Year
in descending order

90 papers	3,701 citations	136950 32 h-index	144013 57 g-index
96 all docs	96 docs citations	96 times ranked	4697 citing authors

#	Article	IF	Citations
1	The role of interleukin-6 signaling in nervous tissue. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 1218-1227.	4.1	335
2	Microbial-induced meprin Î² cleavage in MUC2 mucin and a functional CFTR channel are required to release anchored small intestinal mucus. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12396-12401.	7.1	159
3	Discovery of an enzyme and substrate selective inhibitor of ADAM10 using an exosite-binding glycosylated substrate. Scientific Reports, 2016, 6, 11.	3.3	154
4	Proteomic Identification of Protease Cleavage Sites Characterizes Prime and Non-prime Specificity of Cysteine Cathepsins B, L, and S. Journal of Proteome Research, 2011, 10, 5363-5373.	3.7	148
5	The Metalloprotease Meprin Î² Generates Amino Terminal-truncated Amyloid Î² Peptide Species. Journal of Biological Chemistry, 2012, 287, 33304-33313.	3.4	125
6	The metalloproteases meprin Î± and meprin Î²: unique enzymes in inflammation, neurodegeneration, cancer and fibrosis. Biochemical Journal, 2013, 450, 253-264.	3.7	120
7	Metalloproteases meprin Î± and meprin Î² are C- and N-procollagen proteinases important for collagen assembly and tensile strength. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14219-14224.	7.1	115
8	Proteomic Analyses Reveal an Acidic Prime Side Specificity for the Astacin Metalloprotease Family Reflected by Physiological Substrates. Molecular and Cellular Proteomics, 2011, 10, M111.009233.	3.8	113
9	The substrate degradome of meprin metalloproteases reveals an unexpected proteolytic link between meprinÂÎ² and ADAM10. Cellular and Molecular Life Sciences, 2013, 70, 309-333.	5.4	112
10	The Î± and Î² Subunits of the Metalloprotease Meprin Are Expressed in Separate Layers of Human Epidermis, Revealing Different Functions in Keratinocyte Proliferation and Differentiation. Journal of Investigative Dermatology, 2007, 127, 1115-1125.	0.7	101
11	Proteolytic Origin of the Soluble Human IL-6R In Vivo and a Decisive Role of N-Glycosylation. PLoS Biology, 2017, 15, e2000080.	5.6	99
12	Metalloprotease Meprin Î² Generates Nontoxic N-terminal Amyloid Precursor Protein Fragments in Vivo. Journal of Biological Chemistry, 2011, 286, 27741-27750.	3.4	87
13	LCâ€“MS Based Cleavage Site Profiling of the Proteases ADAM10 and ADAM17 Using Proteome-Derived Peptide Libraries. Journal of Proteome Research, 2014, 13, 2205-2214.	3.7	86
14	Processing of Procollagen III by Meprins: New Players in Extracellular Matrix Assembly?. Journal of Investigative Dermatology, 2010, 130, 2727-2735.	0.7	85
15	Structural basis for the sheddase function of human meprin Î² metalloproteinase at the plasma membrane. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16131-16136.	7.1	74
16	Analyzing the protease web in skin: meprin metalloproteases are activated specifically by KLK4, 5 and 8 vice versa leading to processing of proKLK7 thereby triggering its activation. Biological Chemistry, 2010, 391, 455-60.	2.5	73
17	Fetuin-A and Cystatin C Are Endogenous Inhibitors of Human Meprin Metalloproteases. Biochemistry, 2010, 49, 8599-8607.	2.5	69
18	Meprin Î± and meprin Î²: Procollagen proteinases in health and disease. Matrix Biology, 2015, 44-46, 7-13.	3.6	69

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19	Generation of aggregation prone N-terminally truncated amyloid Î² peptides by meprin Î² depends on the sequence specificity at the cleavage site. Molecular Neurodegeneration, 2016, 11, 19.	10.8	65
20	ADAM17 is required for EGF-Râ€“induced intestinal tumors via IL-6 trans-signaling. Journal of Experimental Medicine, 2018, 215, 1205-1225.	8.5	63
21	Meprin Metalloproteases Generate Biologically Active Soluble Interleukin-6 Receptor to Induce Trans-Signaling. Scientific Reports, 2017, 7, 44053.	3.3	49
22	Short-term TNFÎ± shedding is independent of cytoplasmic phosphorylation or furin cleavage of ADAM17. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 3355-3367.	4.1	47
23	Degradome of soluble ADAM10 and ADAM17 metalloproteases. Cellular and Molecular Life Sciences, 2020, 77, 331-350.	5.4	46
24	Loss of ADAMTS19 causes progressive non-syndromic heart valve disease. Nature Genetics, 2020, 52, 40-47.	21.4	46
25	Mammalian plasma fetuin-B is a selective inhibitor of ovastacin and meprin metalloproteinases. Scientific Reports, 2019, 9, 546.	3.3	44
26	The metalloprotease ADAMTS4 generates N-truncated AÎ²4â€“x species and marks oligodendrocytes as a source of amyloidogenic peptides in Alzheimerâ€™s disease. Acta Neuropathologica, 2019, 137, 239-257.	7.7	44
27	The Metalloprotease Meprin Î² Is an Alternative Î²-Secretase of APP. Frontiers in Molecular Neuroscience, 2016, 9, 159.	2.9	43
28	Let It Flow: Morpholino Knockdown in Zebrafish Embryos Reveals a Pro-Angiogenic Effect of the Metalloprotease Meprin Î±2. PLoS ONE, 2010, 5, e8835.	2.5	42
29	Transglutaminase-1 and Bathing Suit Ichthyosis: Molecular Analysis of Gene/Environment Interactions. Journal of Investigative Dermatology, 2009, 129, 2068-2071.	0.7	41
30	Role of Meprins to Protect Ileal Mucosa of Crohn's Disease Patients from Colonization by Adherent-Invasive E. coli. PLoS ONE, 2011, 6, e21199.	2.5	41
31	Metalloprotease meprin Î² is activated by transmembrane serine protease matriptase-2 at the cell surface thereby enhancing APP shedding. Biochemical Journal, 2015, 470, 91-103.	3.7	39
32	Specific processing of tenascin-C by the metalloprotease meprinÎ² neutralizes its inhibition of cell spreading. Matrix Biology, 2010, 29, 31-42.	3.6	35
33	Inhibition of ADAM17 impairs endothelial cell necroptosis and blocks metastasis. Journal of Experimental Medicine, 2022, 219, .	8.5	35
34	Identification and characterization of onchoastacin, an astacin-like metalloproteinase from the filaria Onchocerca volvulus. Microbes and Infection, 2007, 9, 498-506.	1.9	32
35	MeprinÎ± Transactivates the Epidermal Growth Factor Receptor (EGFR) via Ligand Shedding, thereby Enhancing Colorectal Cancer Cell Proliferation and Migration. Journal of Biological Chemistry, 2012, 287, 35201-35211.	3.4	32
36	Metalloprotease MeprinÎ² in Rat Kidney: Glomerular Localization and Differential Expression in Glomerulonephritis. PLoS ONE, 2008, 3, e2278.	2.5	31

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37	News from an Ancient World: Two Novel Astacin Metalloproteases from the Horseshoe Crab. Journal of Molecular Biology, 2009, 385, 236-248.	4.2	31
38	Ectodomain shedding of CD99 within highly conserved regions is mediated by the metalloprotease meprin Î² and promotes transendothelial cell migration. FASEB Journal, 2017, 31, 1226-1237.	0.5	31
39	Mucus Detachment by Host Metalloprotease Meprin Î² Requires Shedding of Its Inactive Pro-form, which Is Abrogated by the Pathogenic Protease RgpB. Cell Reports, 2017, 21, 2090-2103.	6.4	31
40	Sizzled Is Unique among Secreted Frizzled-related Proteins for Its Ability to Specifically Inhibit Bone Morphogenetic Protein-1 (BMP-1)/Tolloid-like Proteinases. Journal of Biological Chemistry, 2012, 287, 33581-33593.	3.4	30
41	Meprin metalloproteases: Molecular regulation and function in inflammation and fibrosis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 2096-2104.	4.1	30
42	Enhanced Activity of Meprin-Î±, a Pro-Migratory and Pro-Angiogenic Protease, in Colorectal Cancer. PLoS ONE, 2011, 6, e26450.	2.5	30
43	IL-6 trans-signaling in the brain influences the behavioral and physio-pathological phenotype of the Tg2576 and 3xTgAD mouse models of Alzheimerâ€™s disease. Brain, Behavior, and Immunity, 2019, 82, 145-159.	4.1	26
44	Determination of cleavage site of Reelin between its sixth and seventh repeat and contribution of meprin metalloproteases to the cleavage. Journal of Biochemistry, 2016, 159, mvv102.	1.7	23
45	Development and Validation of a Small Single-domain Antibody That Effectively Inhibits Matrix Metalloproteinase 8. Molecular Therapy, 2016, 24, 890-902.	8.2	23
46	Meprins process matrix metalloproteinaseâ€9 (MMPâ€9)/gelatinase B and enhance the activation kinetics by MMPâ€3. FEBS Letters, 2012, 586, 4264-4269.	2.8	22
47	Differences in Shedding of the Interleukin-11 Receptor by the Proteases ADAM9, ADAM10, ADAM17, Meprin Î±, Meprin Î² and MT1-MMP. International Journal of Molecular Sciences, 2019, 20, 3677.	4.1	22
48	TMPRSS4 is a type II transmembrane serine protease involved in cancer and viral infections. Biological Chemistry, 2012, 393, 907-914.	2.5	21
49	Meprin Î² cleaves TREM2 and controls its phagocytic activity on macrophages. FASEB Journal, 2020, 34, 6675-6687.	0.5	21
50	Development of high throughput screening assays and pilot screen for inhibitors of metalloproteases meprin Î± and Î². Biopolymers, 2014, 102, 396-406.	2.4	20
51	Human and Murine Interleukin 23 Receptors Are Novel Substrates for A Disintegrin and Metalloproteases ADAM10 and ADAM17. Journal of Biological Chemistry, 2016, 291, 10551-10561.	3.4	20
52	Tethering soluble meprin Î± in an enzyme complex to the cell surface affects IBDâ€associated genes. FASEB Journal, 2019, 33, 7490-7504.	0.5	20
53	Evaluation of Â¹Â¹Â¹In-Labelled Exendin-4 Derivatives Containing Different Meprin Î²-Specific Cleavable Linkers. PLoS ONE, 2015, 10, e0123443.	2.5	20
54	Metalloproteinase meprin Î± regulates migration and invasion of human hepatocarcinoma cells and is a mediator of the oncoprotein Reptin. Oncotarget, 2017, 8, 7839-7851.	1.8	20

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55	Regulation of the alternative Î²-secretase meprin Î² by ADAM-mediated shedding. Cellular and Molecular Life Sciences, 2019, 76, 3193-3206.	5.4	19
56	<scp>TNF</scp>Î± cleavage beyond <scp>TACE</scp>/<scp>ADAM</scp>17: matrix metalloproteinase 13 is a potential therapeutic target in sepsis and colitis. EMBO Molecular Medicine, 2013, 5, 970-972.	6.9	18
57	Meprin Î² induces activities of A disintegrin and metalloproteinases 9, 10, and 17 by specific prodomain cleavage. FASEB Journal, 2019, 33, 11925-11940.	0.5	18
58	Calcium negatively regulates meprin Î² activity and attenuates substrate cleavage. FASEB Journal, 2015, 29, 3549-3557.	0.5	17
59	Inhibitors of <scp>BMP</scp>â€1/tolloidâ€like proteinases: efficacy, selectivity and cellular toxicity. FEBS Open Bio, 2018, 8, 2011-2021.	2.3	16
60	PCSK9 acts as a key regulator of AÎ² clearance across the bloodâ€“brain barrier. Cellular and Molecular Life Sciences, 2022, 79, 212.	5.4	16
61	Role of meprin metalloproteases in metastasis and tumor microenvironment. Cancer and Metastasis Reviews, 2019, 38, 347-356.	5.9	15
62	Tetraspanin 8 is an interactor of the metalloprotease meprin Î² within tetraspanin-enriched microdomains. Biological Chemistry, 2016, 397, 857-869.	2.5	14
63	Enhanced Peptide Stability Against Protease Digestion Induced by Intrinsic Factor Binding of a Vitamin B₁₂ Conjugate of Exendin-4. Molecular Pharmaceutics, 2015, 12, 3502-3506.	4.6	13
64	Novel Potent Proline-Based Metalloproteinase Inhibitors: Design, (Radio)Synthesis, and First in Vivo Evaluation as Radiotracers for Positron Emission Tomography. Journal of Medicinal Chemistry, 2016, 59, 9541-9559.	6.4	13
65	Cathepsin S provokes interleukin-6 (IL-6) trans-signaling through cleavage of the IL-6 receptor in vitro. Scientific Reports, 2020, 10, 21612.	3.3	13
66	Cancer-associated mutations in the canonical cleavage site do not influence CD99 shedding by the metalloprotease meprin Î² but alter cell migration in vitro. Oncotarget, 2017, 8, 54873-54888.	1.8	13
67	The Swedish dilemma - the almost exclusive use of APPswe-based mouse models impedes adequate evaluation of alternative Î²-secretases. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, , 119164.	4.1	13
68	Docking of Meprin Î± to Heparan Sulphate Protects the Endothelium from Inflammatory Cell Extravasation. Thrombosis and Haemostasis, 2018, 118, 1790-1802.	3.4	12
69	Deficiency of the DSPP-cleaving enzymes meprin Î± and meprin Î² does not result in dentin malformation in mice. Cell and Tissue Research, 2017, 367, 351-358.	2.9	11
70	The cancer associated meprin Î² variant p.G32R provides an additional activation site and promotes cancer cell invasion. Journal of Cell Science, 2019, 132, .	2.0	11
71	IL-6 Trans-Signaling in the Brain Influences the Metabolic Phenotype of the 3xTg-AD Mouse Model of Alzheimerâ€™s Disease. Cells, 2020, 9, 1605.	4.1	11
72	Distinct contributions of meprins to skin regeneration after injury â€“ Meprin Î± a physiological processer of pro-collagen VII. Matrix Biology Plus, 2021, 11, 100065.	3.5	11

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73	The intact Kunitz domain protects the amyloid precursor protein from being processed by matriptase-2. Biological Chemistry, 2016, 397, 777-790.	2.5	10
74	Meprin and ADAM proteases as triggers of systemic inflammation in sepsis. FEBS Letters, 2022, 596, 534-556.	2.8	9
75	Meprin Î²: A novel regulator of bloodâ€“brain barrier integrity. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 31-44.	4.3	8
76	Discovery and Optimization of Selective Inhibitors of Meprin Î± (Part I). Pharmaceuticals, 2021, 14, 203.	3.8	8
77	Cell Surface Processing of CD109 by Meprin Î² Leads to the Release of Soluble Fragments and Reduced Expression on Extracellular Vesicles. Frontiers in Cell and Developmental Biology, 2021, 9, 622390.	3.7	8
78	Propeptide glycosylation and galectinâ€3 binding decrease proteolytic activation of human pro<scp>MMP</scp>â€9/progelatinase B. FEBS Journal, 2019, 286, 930-945.	4.7	7
79	Regulation of meprin metalloproteases in mucosal homeostasis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2022, 1869, 119158.	4.1	7
80	Mapping orphan proteases by proteomics: Meprin metalloproteases deciphered as potential therapeutic targets. Proteomics - Clinical Applications, 2014, 8, 382-388.	1.6	6
81	Discovery and Optimization of Selective Inhibitors of Meprin Î± (Part II). Pharmaceuticals, 2021, 14, 197.	3.8	6
82	Phosphorylation of meprin Î² controls its cell surface abundance and subsequently diminishes ectodomain shedding. FASEB Journal, 2021, 35, e21677.	0.5	6
83	Identification of Mep1a as a susceptibility gene for atherosclerosis in mice. Genetics, 2021, 219, .	2.9	6
84	Syndecan-1 shedding by meprin Î² impairs keratinocyte adhesion and differentiation in hyperkeratosis. Matrix Biology, 2021, 102, 37-69.	3.6	6
85	Meprin Î² and BMP-1 are differentially regulated by CaCl 2. Cell Calcium, 2017, 65, 8-13.	2.4	5
86	Characterization of the Cancer-Associated Meprin Î'eta Variants G45R and G89R. Frontiers in Molecular Biosciences, 2021, 8, 702341.	3.5	4
87	Meprin Î² knockout reduces brain AÎ² levels and rescues learning and memory impairments in the APP/lon mouse model for Alzheimerâ€™s disease. Cellular and Molecular Life Sciences, 2022, 79, 168.	5.4	3
88	Tetraspanin 8 is an interactor of the metalloprotease meprin Î² within tetraspanin-enriched microdomains. Biological Chemistry, 2016, .	2.5	1
89	Mice are not Men: ADAM30 Findings Emphasize a Broader Look Towards Murine Alzheimer's Disease Models. EBioMedicine, 2016, 9, 19-20.	6.1	0
90	Protein Synthesis/Degradation: Protein Degradation â€“ Protease Classes â€“ Metalloproteases Meprin Î± and Meprin Î² in Health and Disease. , 2022, , .		0