Carl P Blobel

List of Publications by Year
in descending order

112 papers	13,911 citations	20817 60 h-index	26613 107 g-index
114 all docs	114 docs citations	114 times ranked	11352 citing authors

#	Article	IF	Citations
1	ADAMs: key components in EGFR signalling and development. Nature Reviews Molecular Cell Biology, 2005, 6, 32-43.	37.0	989
2	Distinct roles for ADAM10 and ADAM17 in ectodomain shedding of six EGFR ligands. Journal of Cell Biology, 2004, 164, 769-779.	5.2	895
3	A potential fusion peptide and an integrin ligand domain in a protein active in spermâ€“egg fusion. Nature, 1992, 356, 248-252.	27.8	708
4	Tumor Necrosis Factor-Î±-converting Enzyme (ADAM17) Mediates the Cleavage and Shedding of Fractalkine (CX3CL1). Journal of Biological Chemistry, 2001, 276, 37993-38001.	3.4	551
5	Adam Meets Eph: An ADAM Substrate Recognition Module Acts as a Molecular Switch for Ephrin Cleavage In trans. Cell, 2005, 123, 291-304.	28.9	407
6	Metalloprotease-Disintegrins: Links to Cell Adhesion and Cleavage of TNFÎ± and Notch. Cell, 1997, 90, 589-592.	28.9	371
7	The Disintegrin/Metalloproteinase ADAM10 Is Essential for the Establishment of the Brain Cortex. Journal of Neuroscience, 2010, 30, 4833-4844.	3.6	327
8	In search of partners: linking extracellular proteases to substrates. Nature Reviews Molecular Cell Biology, 2007, 8, 245-257.	37.0	326
9	Intracellular maturation and localization of the tumour necrosis factor Î± convertase (TACE). Biochemical Journal, 2000, 347, 131-138.	3.7	320
10	iRhom2 Regulation of TACE Controls TNF-Mediated Protection Against Listeria and Responses to LPS. Science, 2012, 335, 229-232.	12.6	292
11	Cutting Edge: TNF-Î±-Converting Enzyme (TACE/ADAM17) Inactivation in Mouse Myeloid Cells Prevents Lethality from Endotoxin Shock. Journal of Immunology, 2007, 179, 2686-2689.	0.8	287
12	Metalloprotease-Disintegrin MDC9: Intracellular Maturation and Catalytic Activity. Journal of Biological Chemistry, 1999, 274, 3531-3540.	3.4	284
13	Substrate Selectivity of Epidermal Growth Factor-Receptor Ligand Sheddases and their Regulation by Phorbol Esters and Calcium Influx. Molecular Biology of the Cell, 2007, 18, 176-188.	2.1	276
14	ADAM10 Regulates Endothelial Permeability and T-Cell Transmigration by Proteolysis of Vascular Endothelial Cadherin. Circulation Research, 2008, 102, 1192-1201.	4.5	264
15	ADAMs 10 and 17 Represent Differentially Regulated Components of a General Shedding Machinery for Membrane Proteins Such as Transforming Growth Factor Î±, L-Selectin, and Tumor Necrosis Factor Î±. Molecular Biology of the Cell, 2009, 20, 1785-1794.	2.1	230
16	Shedding of the Mer Tyrosine Kinase Receptor Is Mediated by ADAM17 Protein through a Pathway Involving Reactive Oxygen Species, Protein Kinase CÎ´, and p38 Mitogen-activated Protein Kinase (MAPK). Journal of Biological Chemistry, 2011, 286, 33335-33344.	3.4	228
17	L1 Is Sequentially Processed by Two Differently Activated Metalloproteases and Presenilin/Î³-Secretase and Regulates Neural Cell Adhesion, Cell Migration, and Neurite Outgrowth. Molecular and Cellular Biology, 2005, 25, 9040-9053.	2.3	212
18	Metalloproteases regulate T-cell proliferation and effector function via LAG-3. EMBO Journal, 2007, 26, 494-504.	7.8	203

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19	ADAM10 is a principal 'sheddase' of the low-affinity immunoglobulin E receptor CD23. Nature Immunology, 2006, 7, 1293-1298.	14.5	189
20	Mice Lacking the Metalloprotease-Disintegrin MDC9 (ADAM9) Have No Evident Major Abnormalities during Development or Adult Life. Molecular and Cellular Biology, 2002, 22, 1537-1544.	2.3	183
21	Tumor Necrosis Factor-Î± Converting Enzyme/ADAM 17 Mediates MUC1 Shedding. Journal of Biological Chemistry, 2003, 278, 3386-3394.	3.4	177
22	Potential Role for ADAM15 in Pathological Neovascularization in Mice. Molecular and Cellular Biology, 2003, 23, 5614-5624.	2.3	170
23	ADAM17 is regulated by a rapid and reversible mechanism that controls access to its catalytic site. Journal of Cell Science, 2010, 123, 3913-3922.	2.0	165
24	Epidermal ADAM17 maintains the skin barrier by regulating EGFR ligandâ€“dependent terminal keratinocyte differentiation. Journal of Experimental Medicine, 2012, 209, 1105-1119.	8.5	161
25	Interaction of the Metalloprotease Disintegrins MDC9 and MDC15 with Two SH3 Domain-containing Proteins, Endophilin I and SH3PX1. Journal of Biological Chemistry, 1999, 274, 31693-31699.	3.4	157
26	Metargidin, a Membrane-anchored Metalloprotease-Disintegrin Protein with an RGD Integrin Binding Sequence. Journal of Biological Chemistry, 1996, 271, 4593-4596.	3.4	154
27	Evaluation of the contributions of ADAMs 9, 12, 15, 17, and 19 to heart development and ectodomain shedding of neuregulins Î²1 and Î²2. Developmental Biology, 2005, 283, 459-471.	2.0	147
28	VEGF-A Stimulates ADAM17-Dependent Shedding of VEGFR2 and Crosstalk Between VEGFR2 and ERK Signaling. Circulation Research, 2008, 103, 916-918.	4.5	146
29	Intracellular Maturation of the Mouse Metalloprotease Disintegrin MDC15. Journal of Biological Chemistry, 1998, 273, 26236-26247.	3.4	145
30	iRhom2 controls the substrate selectivity of stimulated ADAM17-dependent ectodomain shedding. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11433-11438.	7.1	138
31	TACE (ADAM17) inhibits Schwann cell myelination. Nature Neuroscience, 2011, 14, 857-865.	14.8	136
32	Evaluation of the Contribution of Different ADAMs to Tumor Necrosis Factor Î± (TNFÎ±) Shedding and of the Function of the TNFÎ± Ectodomain in Ensuring Selective Stimulated Shedding by the TNFÎ± Convertase (TACE/ADAM17). Journal of Biological Chemistry, 2004, 279, 42898-42906.	3.4	135
33	Evidence for a Critical Role of the Tumor Necrosis Factor Î± Convertase (TACE) in Ectodomain Shedding of the p75 Neurotrophin Receptor (p75NTR). Journal of Biological Chemistry, 2004, 279, 4241-4249.	3.4	134
34	MyD88 signaling in nonhematopoietic cells protects mice against induced colitis by regulating specific EGF receptor ligands. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19967-19972.	7.1	134
35	Pathological Neovascularization Is Reduced by Inactivation of ADAM17 in Endothelial Cells but Not in Pericytes. Circulation Research, 2010, 106, 932-940.	4.5	132
36	The disintegrin/metalloproteinase Adam10 is essential for epidermal integrity and Notch-mediated signaling. Development (Cambridge), 2011, 138, 495-505.	2.5	130

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37	iRHOM2 is a critical pathogenic mediator of inflammatory arthritis. Journal of Clinical Investigation, 2013, 123, 928-32.	8.2	129
38	The enzymatic activity of ADAM8 and ADAM9 is not regulated by TIMPs. FEBS Letters, 2002, 524, 154-158.	2.8	128
39	Migration of growth factor-stimulated epithelial and endothelial cells depends on EGFR transactivation by ADAM17. Nature Communications, 2011, 2, 229.	12.8	128
40	Biochemical and Pharmacological Criteria Define Two Shedding Activities for TRANCE/OPGL That Are Distinct from the Tumor Necrosis Factor Î± Convertase. Journal of Biological Chemistry, 2001, 276, 14665-14674.	3.4	121
41	iRhoms 1 and 2 are essential upstream regulators of ADAM17-dependent EGFR signaling. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6080-6085.	7.1	121
42	Essential Role for ADAM19 in Cardiovascular Morphogenesis. Molecular and Cellular Biology, 2004, 24, 96-104.	2.3	118
43	Proteolytic Processing of Delta-like 1 by ADAM Proteases. Journal of Biological Chemistry, 2007, 282, 436-444.	3.4	117
44	Cloning and characterization of ADAM28: evidence for autocatalytic pro-domain removal and for cell surface localization of mature ADAM28. Biochemical Journal, 2000, 348, 21-27.	3.7	116
45	Evidence for Regulation of the Tumor Necrosis Factor Î±-Convertase (TACE) by Protein-tyrosine Phosphatase PTPH1. Journal of Biological Chemistry, 2002, 277, 42463-42470.	3.4	116
46	Catalytic Properties of ADAM19. Journal of Biological Chemistry, 2003, 278, 22331-22340.	3.4	114
47	Metalloprotease-disintegrin ADAM8: Expression analysis and targeted deletion in mice. Developmental Dynamics, 2005, 232, 221-231.	1.8	107
48	Shedding of Collagen XVII/BP180 in Skin Depends on Both ADAM10 and ADAM9. Journal of Biological Chemistry, 2009, 284, 23386-23396.	3.4	105
49	Ectodomain shedding of the EGF-receptor ligand epigen is mediated by ADAM17. FEBS Letters, 2007, 581, 41-44.	2.8	101
50	Cloning and Initial Characterization of Mouse Meltrin Î² and Analysis of the Expression of Four MetalloproteaseDisintegrins in Bone Cells. Journal of Biological Chemistry, 1998, 273, 4180-4187.	3.4	100
51	Critical Function for ADAM9 in Mouse Prostate Cancer. Cancer Research, 2005, 65, 9312-9319.	0.9	100
52	Neuronal Brain-derived Neurotrophic Factor Is Synthesized in Excess, with Levels Regulated by Sortilin-mediated Trafficking and Lysosomal Degradation. Journal of Biological Chemistry, 2011, 286, 29556-29567.	3.4	91
53	Intracellular maturation and localization of the tumour necrosis factor Î± convertase (TACE). Biochemical Journal, 2000, 347, 131.	3.7	89
54	ADAM9 Is Involved in Pathological Retinal Neovascularization. Molecular and Cellular Biology, 2009, 29, 2694-2703.	2.3	85

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55	Biochemical properties and functions of membrane-anchored metalloprotease-disintegrin proteins (ADAMs). Current Topics in Developmental Biology, 2003, 54, 101-123.	2.2	81
56	Evidence for an interaction of the metalloproteaseâ€“disintegrin tumour necrosis factor Î± convertase (TACE) with mitotic arrest deficient 2 (MAD2), and of the metalloproteaseâ€“disintegrin MDC9 with a novel MAD2-related protein, MAD2Î². Biochemical Journal, 1999, 343, 673-680.	3.7	80
57	Ectodomain shedding of EGFR ligands and TNFR1 dictates hepatocyte apoptosis during fulminant hepatitis in mice. Journal of Clinical Investigation, 2010, 120, 2731-2744.	8.2	76
58	The role of protease activity in ErbB biology. Experimental Cell Research, 2009, 315, 671-682.	2.6	75
59	Deletion of Adam10 in endothelial cells leads to defects in organ-specific vascular structures. Blood, 2011, 118, 1163-1174.	1.4	69
60	iRhom2 promotes lupus nephritis through TNF-Î± and EGFR signaling. Journal of Clinical Investigation, 2018, 128, 1397-1412.	8.2	66
61	Catalytic activity of ADAM28. FEBS Letters, 2001, 498, 82-86.	2.8	63
62	Deletions in the cytoplasmic domain of iRhom1 and iRhom2 promote shedding of the TNF receptor by the protease ADAM17. Science Signaling, 2015, 8, ra109.	3.6	60
63	The Functional Maturation of A Disintegrin and Metalloproteinase (ADAM) 9, 10, and 17 Requires Processing at a Newly Identified Proprotein Convertase (PC) Cleavage Site. Journal of Biological Chemistry, 2015, 290, 12135-12146.	3.4	59
64	Homeostatic effects of the metalloproteinase disintegrin ADAM15 in degenerative cartilage remodeling. Arthritis and Rheumatism, 2005, 52, 1100-1109.	6.7	57
65	Conditional Inactivation of TACE by a Sox9 Promoter Leads to Osteoporosis and Increased Granulopoiesis via Dysregulation of IL-17 and G-CSF. Journal of Immunology, 2009, 182, 2093-2101.	0.8	57
66	ADAM10 and ADAM17 promote SARSâ€CoVâ€2 cell entry and spike proteinâ€mediated lung cell fusion. EMBO Reports, 2022, 23, e54305.	4.5	57
67	Different ADAMs have distinct influences on Kit ligand processing: phorbol-ester-stimulated ectodomain shedding of Kitl1 by ADAM17 is reduced by ADAM19. Journal of Cell Science, 2007, 120, 943-952.	2.0	56
68	Evidence for an interaction of the metalloproteaseâ€'disintegrin tumour necrosis factor Î± convertase (TACE) with mitotic arrest deficient 2 (MAD2), and of the metalloproteaseâ€'disintegrin MDC9 with a novel MAD2-related protein, MAD2Î². Biochemical Journal, 1999, 343, 673.	3.7	50
69	ADAM12: a potential target for the treatment of chronic wounds. Journal of Molecular Medicine, 2008, 86, 961-969.	3.9	50
70	ADAM8 is a negative regulator of retinal neovascularization and of the growth of heterotopically injected tumor cells in mice. Journal of Molecular Medicine, 2010, 88, 497-505.	3.9	49
71	Characterization of the catalytic activity of the membrane-anchored metalloproteinase ADAM15 in cell-based assays. Biochemical Journal, 2009, 420, 105-113.	3.7	48
72	ADAM12 is expressed in the tumour vasculature and mediates ectodomain shedding of several membrane-anchored endothelial proteins. Biochemical Journal, 2013, 452, 97-109.	3.7	48

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73	A protective Langerhans cellâ€“keratinocyte axis that is dysfunctional in photosensitivity. Science Translational Medicine, 2018, 10, .	12.4	48
74	ADAM17 Controls Endochondral Ossification by Regulating Terminal Differentiation of Chondrocytes. Molecular and Cellular Biology, 2013, 33, 3077-3090.	2.3	47
75	A Sensitive Method to Monitor Ectodomain Shedding of Ligands of the Epidermal Growth Factor Receptor. , 2006, 327, 99-114.		46
76	Stimulation of Platelet-derived Growth Factor Receptor Î² (PDGFRÎ²) Activates ADAM17 and Promotes Metalloproteinase-dependent Cross-talk between the PDGFRÎ² and Epidermal Growth Factor Receptor (EGFR) Signaling Pathways. Journal of Biological Chemistry, 2010, 285, 25024-25032.	3.4	45
77	Interleukin-1 Stimulates ADAM17 through a Mechanism Independent of its Cytoplasmic Domain or Phosphorylation at Threonine 735. PLoS ONE, 2012, 7, e31600.	2.5	43
78	Cell Surface Colony-Stimulating Factor 1 Can Be Cleaved by TNF-Î± Converting Enzyme or Endocytosed in a Clathrin-Dependent Manner. Journal of Immunology, 2007, 179, 6715-6724.	0.8	42
79	ADAM10-Dependent Signaling Through Notch1 and Notch4 Controls Development of Organ-Specific Vascular Beds. Circulation Research, 2016, 119, 519-531.	4.5	39
80	Blood-induced bone loss in murine hemophilic arthropathy is prevented by blocking the iRhom2/ADAM17/TNF-Î± pathway. Blood, 2018, 132, 1064-1074.	1.4	38
81	Intriguing Roles for Endothelial ADAM10/Notch Signaling in the Development of Organ-Specific Vascular Beds. Physiological Reviews, 2018, 98, 2025-2061.	28.8	37
82	ADAM10 controls the differentiation of the coronary arterial endothelium. Angiogenesis, 2019, 22, 237-250.	7.2	36
83	The Cytoplasmic Domain of A Disintegrin and Metalloproteinase 10 (ADAM10) Regulates Its Constitutive Activity but Is Dispensable for Stimulated ADAM10-dependent Shedding. Journal of Biological Chemistry, 2015, 290, 7416-7425.	3.4	34
84	Structural modeling defines transmembrane residues in ADAM17 that are crucial for Rhbdf2/ADAM17-dependent proteolysis. Journal of Cell Science, 2017, 130, 868-878.	2.0	34
85	Blood-Induced Arthropathy in Hemophilia: Mechanisms and Heterogeneity. Seminars in Thrombosis and Hemostasis, 2015, 41, 832-837.	2.7	31
86	Glomerular endothelial cell maturation depends on ADAM10, a key regulator of Notch signaling. Angiogenesis, 2018, 21, 335-347.	7.2	31
87	Src Stimulates Fibroblast Growth Factor Receptor-2 Shedding by an ADAM15 Splice Variant Linked to Breast Cancer. Cancer Research, 2009, 69, 4573-4576.	0.9	30
88	Ectodomain Shedding of FLT3 Ligand Is Mediated by TNF-Î± Converting Enzyme. Journal of Immunology, 2009, 182, 7408-7414.	0.8	29
89	Macrocyclic Î¸-defensins suppress tumor necrosis factor-Î± (TNF-Î±) shedding by inhibition of TNF-Î±â€“converting enzyme. Journal of Biological Chemistry, 2018, 293, 2725-2734.	3.4	28
90	The metalloprotease ADAM10 (a disintegrin and metalloprotease 10) undergoes rapid, postlysis autocatalytic degradation. FASEB Journal, 2018, 32, 3560-3573.	0.5	26

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91	TNF-Î±â€“Converting Enzyme/A Disintegrin and Metalloproteaseâ˜17 Mediates Mechanotransduction in Murine Tracheal Epithelial Cells. American Journal of Respiratory Cell and Molecular Biology, 2011, 45, 376-385.	2.9	24
92	Epidermal ADAM17 Is Dispensable for Notch Activation. Journal of Investigative Dermatology, 2013, 133, 2286-2288.	0.7	24
93	Substrateâ€selective protein ectodomain shedding by ADAM17 and iRhom2 depends on their juxtamembrane and transmembrane domains. FASEB Journal, 2020, 34, 4956-4969.	0.5	22
94	A Murine Model for Retinopathy of Prematurity Identifies Endothelial Cell Proliferation as a Potential Mechanism for Plus Disease. , 2013, 54, 5294.		21
95	Evidence for cadherin-11 cleavage in the synovium and partial characterization of its mechanism. Arthritis Research and Therapy, 2015, 17, 126.	3.5	18
96	Characterization of the catalytic properties of the membrane-anchored metalloproteinase ADAM9 in cell-based assays. Biochemical Journal, 2017, 474, 1467-1479.	3.7	16
97	The xenoestrogens biphenolâ€A and nonylphenol differentially regulate metalloproteaseâ€mediated shedding of EGFR ligands. Journal of Cellular Physiology, 2018, 233, 2247-2256.	4.1	16
98	Endothelial deletion of ADAM10, a key regulator of Notch signaling, causes impaired decidualization and reduced fertility in female mice. Angiogenesis, 2020, 23, 443-458.	7.2	15
99	iRhom2 regulates CSF1R cell surface expression and nonâ€steady state myelopoiesis in mice. European Journal of Immunology, 2016, 46, 2737-2748.	2.9	14
100	ADAM17 stabilizes its interacting partner inactive Rhomboid 2 (iRhom2) but not inactive Rhomboid 1 (iRhom1). Journal of Biological Chemistry, 2020, 295, 4350-4358.	3.4	12
101	3D trumps 2D when studying endothelial cells. Blood, 2010, 115, 5128-5130.	1.4	10
102	Lack of ADAM10 in endothelial cells affects osteoclasts at the chondroâ€osseus junction. Journal of Orthopaedic Research, 2014, 32, 224-230.	2.3	10
103	Characterization of Oxygen-Induced Retinopathy in Mice Carrying an Inactivating Point Mutation in the Catalytic Site of ADAM15. Investigative Ophthalmology and Visual Science, 2014, 55, 6774-6782.	3.3	10
104	iRhoms in the brain â€“ a new frontier?. Cell Cycle, 2015, 14, 3003-3004.	2.6	10
105	Analysis of the Conditions That Affect the Selective Processing of Endogenous Notch1 by ADAM10 and ADAM17. International Journal of Molecular Sciences, 2021, 22, 1846.	4.1	10
106	Targeted truncation of the ADAM17 cytoplasmic domain in mice results in protein destabilization and a hypomorphic phenotype. Journal of Biological Chemistry, 2021, 296, 100733.	3.4	9
107	The pseudoprotease iRhom1 controls ectodomain shedding of membrane proteins in the nervous system. FASEB Journal, 2021, 35, e21962.	0.5	5
108	Role of iRhoms 1 and 2 in Endochondral Ossification. International Journal of Molecular Sciences, 2020, 21, 8732.	4.1	4

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109	ADAMs and ADAMTSs. , 2022, , 568-573.		3
110	Studies from ADAM Knockout Mice. , 2005, , 29-64.		2
111	The Threshold Effect: Lipopolysaccharide-Induced Inflammatory Responses in Primary Macrophages Are Differentially Regulated in an iRhom2-Dependent Manner. Frontiers in Cellular and Infection Microbiology, 2020, 10, 620392.	3.9	1
112	ADAMs Regulate Cell-Cell Interactions by Controlling the Function of the EGF-Receptor, TNFÎ± and Notch. , 2022, , .		0