Carsten Berndt

List of Publications by Year
in descending order

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67	8,523	94433 37	114465 63
papers	citations	h-index	g-index

71	71	71	11982
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Glutaredoxin 2 promotes SP-1-dependent CSPG4 transcription and migration of wound healing NG2 glia and glioma cells: Enzymatic Taoism. Redox Biology, 2022, 49, 102221.	9.0	6
2	Functional plasticity in the thioredoxin family: FeS-thio- and glutaredoxins. , 2022, , 219-239.		0
3	Glutaredoxins with iron-sulphur clusters in eukaryotes - Structure, function and impact on disease. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148317.	1.0	16
4	Fin56-induced ferroptosis is supported by autophagy-mediated GPX4 degradation and functions synergistically with mTOR inhibition to kill bladder cancer cells. Cell Death and Disease, 2021, 12, 1028.	6.3	107
5	Redox-regulated brain development. , 2020, , 565-582.		2
6	Molecular basis for the distinct functions of redox-active and FeS-transfering glutaredoxins. Nature Communications, 2020, 11, 3445.	12.8	47
7	Glutaredoxin 2 Reduces Asthma-Like Acute Airway Inflammation in Mice. Frontiers in Immunology, 2020, 11, 561724.	4.8	12
8	Protective effects of 4-aminopyridine in experimental optic neuritis and multiple sclerosis. Brain, 2020, 143, 1127-1142.	7.6	29
9	Redox Modifications of Proteins of the Mitochondrial Fusion and Fission Machinery. Cells, 2020, 9, 815.	4.1	22
10	Regulation of sirtuin expression in autoimmune neuroinflammation: Induction of SIRT1 in oligodendrocyte progenitor cells. Neuroscience Letters, 2019, 704, 116-125.	2.1	21
11	The metalloprotease ADAMTS4 generates N-truncated Aβ4â€“x species and marks oligodendrocytes as a source of amyloidogenic peptides in Alzheimerâ€™s disease. Acta Neuropathologica, 2019, 137, 239-257.	7.7	44
12	Selenium Utilization by GPX4 Is Required to Prevent Hydroperoxide-Induced Ferroptosis. Cell, 2018, 172, 409-422.e21.	28.9	920
13	Early alpha-lipoic acid therapy protects from degeneration of the inner retinal layers and vision loss in an experimental autoimmune encephalomyelitis-optic neuritis model. Journal of Neuroinflammation, 2018, 15, 71.	7.2	37
14	Thioredoxin (TXN). , 2018, , 5377-5385.		0
15	Oxidative Stress. Annual Review of Biochemistry, 2017, 86, 715-748.	11.1	2,180
16	European contribution to the study of ROS: A summary of the findings and prospects for the future from the COST action BM1203 (EU-ROS). Redox Biology, 2017, 13, 94-162.	9.0	242
17	Glutathione, Glutaredoxins, and Iron. Antioxidants and Redox Signaling, 2017, 27, 1235-1251.	5.4	95
18	Ironâ€sulfur glutaredoxin 2 protects oligodendrocytes against damage induced by nitric oxide release from activated microglia. Glia, 2017, 65, 1521-1534.	4.9	33

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19	Redox Events As Modulators of Pathology and Therapy of Neuroinflammatory Diseases. Frontiers in Cell and Developmental Biology, 2016, 4, 63.	3.7	6
20	Activation of Wnt signaling promotes hippocampal neurogenesis in experimental autoimmune encephalomyelitis. Molecular Neurodegeneration, 2016, 11, 53.	10.8	13
21	Hypoxic Signaling and the Cellular Redox Tumor Environment Determine Sensitivity to MTH1 Inhibition. Cancer Research, 2016, 76, 2366-2375.	0.9	40
22	Identification and Successful Negotiation of a Metabolic Checkpoint in Direct Neuronal Reprogramming. Cell Stem Cell, 2016, 18, 396-409.	11.1	307
23	Thioredoxin (TXN). , 2016, , 1-9.		0
24	14 Thioredoxins and Glutaredoxins. Functions and Metal Ion Interactions. , 2015, , 413-440.		0
25	Redox-regulated fate of neural stem progenitor cells. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1543-1554.	2.4	37
26	Redox regulation of cytoskeletal dynamics during differentiation and de-differentiation. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1575-1587.	2.4	30
27	Redox regulation of differentiation and de-differentiation. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1467-1468.	2.4	2
28	Arabidopsis Glutaredoxin S17 and Its Partner, the Nuclear Factor Y Subunit C11/Negative Cofactor 2Î±, Contribute to Maintenance of the Shoot Apical Meristem under Long-Day Photoperiod. Plant Physiology, 2015, 167, 1643-1658.	4.8	78
29	Cytosolic thiol switches regulating basic cellular functions: GAPDH as an information hub?. Biological Chemistry, 2015, 396, 523-537.	2.5	137
30	The mitochondrial monothiol glutaredoxin S15 is essential for iron-sulfur protein maturation in <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13735-13740.	7.1	84
31	The specificity of thioredoxins and glutaredoxins is determined by electrostatic and geometric complementarity. Chemical Science, 2015, 6, 7049-7058.	7.4	52
32	Redox regulation by glutathione needs enzymes. Frontiers in Pharmacology, 2014, 5, 168.	3.5	71
33	Protein oxidative damage in the hippocampus in a mouse model of acute hyperammonemia. European Journal of Medical Research, 2014, 19, .	2.2	3
34	Zebrafish heart development is regulated via glutaredoxin 2 dependent migration and survival of neural crest cells. Redox Biology, 2014, 2, 673-678.	9.0	43
35	Glutaredoxins in Thiol/Disulfide Exchange. Antioxidants and Redox Signaling, 2013, 18, 1654-1665.	5.4	117
36	Ironâ€“Sulfur Cluster Binding by Mitochondrial Monothiol Glutaredoxin-1 of<i>Trypanosoma brucei</i>: Molecular Basis of Ironâ€“Sulfur Cluster Coordination and Relevance for Parasite Infectivity. Antioxidants and Redox Signaling, 2013, 19, 665-682.	5.4	37

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37	Thioredoxins, Glutaredoxins, and Peroxiredoxinsâ€"Molecular Mechanisms and Health Significance: from Cofactors to Antioxidants to Redox Signaling. Antioxidants and Redox Signaling, 2013, 19, 1539-1605.	5.4	557
38	Cellular functions of glutathione. Biochimica Et Biophysica Acta - General Subjects, 2013, 1830, 3137-3138.	2.4	15
39	An unusual mode of ironâ€"sulfur-cluster coordination in a teleost glutaredoxin. Biochemical and Biophysical Research Communications, 2013, 436, 491-496.	2.1	15
40	Crucial function of vertebrate glutaredoxin 3 (PICOT) in iron homeostasis and hemoglobin maturation. Molecular Biology of the Cell, 2013, 24, 1895-1903.	2.1	101
41	Glutaredoxin regulates vascular development by reversible glutathionylation of sirtuin 1. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20057-20062.	7.1	77
42	The Multidomain Thioredoxin-Monothiol Glutaredoxins Represent a Distinct Functional Group. Antioxidants and Redox Signaling, 2011, 15, 19-30.	5.4	54
43	Ascorbate and endocytosed Motexafin gadolinium induce lysosomal rupture. Cancer Letters, 2011, 307, 119-123.	7.2	7
44	Vertebrate-specific glutaredoxin is essential for brain development. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20532-20537.	7.1	71
45	Chelation of lysosomal iron protects against ionizing radiation. Biochemical Journal, 2010, 432, 295-301.	3.7	41
46	The Dithiol Glutaredoxins of African Trypanosomes Have Distinct Roles and Are Closely Linked to the Unique Trypanothione Metabolism. Journal of Biological Chemistry, 2010, 285, 35224-35237.	3.4	78
47	Characterization of the human monothiol glutaredoxin 3 (PICOT) as ironâ€"sulfur protein. Biochemical and Biophysical Research Communications, 2010, 394, 372-376.	2.1	89
48	Metabolism of selenium compounds catalyzed by the mammalian selenoprotein thioredoxin reductase. Biochimica Et Biophysica Acta - General Subjects, 2009, 1790, 1513-1519.	2.4	92
49	Mechanism of inhibition of ribonucleotide reductase with motexafin gadolinium (MGd). Biochemical and Biophysical Research Communications, 2009, 379, 775-779.	2.1	22
50	Thioredoxins and Glutaredoxins. Functions and Metal Ion Interactions. Metal Ions in Life Sciences, 2009, , 413-439.	1.0	4
51	Thioredoxins and glutaredoxins as facilitators of protein folding. Biochimica Et Biophysica Acta - Molecular Cell Research, 2008, 1783, 641-650.	4.1	223
52	Oxidative Folding of Proteins<i>in vivo</i>. RSC Biomolecular Sciences, 2008, , 1-18.	0.4	0
53	Expression Pattern of Human Glutaredoxin 2 Isoforms: Identification and Characterization of Two Testis/Cancer Cell-Specific Isoforms. Antioxidants and Redox Signaling, 2008, 10, 547-558.	5.4	85
54	Glutaredoxin systems. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 1304-1317.	2.4	523

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55	Preface to the special issue on redox control of cell function. Biochimica Et Biophysica Acta - General Subjects, 2008, 1780, 1169.	2.4	3
56	Monothiol Glutaredoxin-1 Is an Essential Iron-Sulfur Protein in the Mitochondrion of African Trypanosomes. Journal of Biological Chemistry, 2008, 283, 27785-27798.	3.4	60
57	How Does Ironâ€"Sulfur Cluster Coordination Regulate the Activity of Human Glutaredoxin 2?. Antioxidants and Redox Signaling, 2007, 9, 151-157.	5.4	101
58	Oxidation and S-Nitrosylation of Cysteines in Human Cytosolic and Mitochondrial Glutaredoxins. Journal of Biological Chemistry, 2007, 282, 14428-14436.	3.4	94
59	Thiol-based mechanisms of the thioredoxin and glutaredoxin systems: implications for diseases in the cardiovascular system. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H1227-H1236.	3.2	307
60	A Conservedcis-Proline Precludes Metal Binding by the Active Site Thiolates in Members of the Thioredoxin Family of Proteinsâ€. Biochemistry, 2007, 46, 6903-6910.	2.5	57
61	Thiol redox control via thioredoxin and glutaredoxin systems. Biochemical Society Transactions, 2005, 33, 1375.	3.4	341
62	Characterization of human glutaredoxin 2 as iron-sulfur protein: A possible role as redox sensor. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8168-8173.	7.1	260
63	A Novel Monothiol Glutaredoxin (Grx4) from Escherichia coli Can Serve as a Substrate for Thioredoxin Reductase. Journal of Biological Chemistry, 2005, 280, 24544-24552.	3.4	129
64	Characterization and Reconstitution of a 4Fe-4S Adenylyl Sulfate/Phosphoadenylyl Sulfate Reductase from Bacillus subtilis. Journal of Biological Chemistry, 2004, 279, 7850-7855.	3.4	63
65	A dimer of the FeS cluster biosynthesis protein IscA from cyanobacteria binds a [2Fe2S] cluster between two protomers and transfers it to [2Fe2S] and [4Fe4S] apo proteins. FEBS Journal, 2003, 270, 1662-1671.	0.2	81
66	Characterization of the Redox Properties of Poplar Glutaredoxin. Antioxidants and Redox Signaling, 2003, 5, 15-22.	5.4	33
67	Molecular and Catalytic Properties of Arabidopsis thaliana Adenylyl Sulfate (APS)-Kinase. Archives of Biochemistry and Biophysics, 2001, 392, 303-310.	3.0	51