

Qing Cheng

List of Publications by Year in descending order

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Version: 2024-02-01

35
papers

1,521
citations

394286

19
h-index

360920

35
g-index

38
all docs

38
docs citations

38
times ranked

1945
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel persulfide detection method reveals protein persulfide- and polysulfide-reducing functions of thioredoxin and glutathione systems. <i>Science Advances</i> , 2016, 2, e1500968.	4.7	250
2	Crystal Structure and Catalysis of the Selenoprotein Thioredoxin Reductase 1. <i>Journal of Biological Chemistry</i> , 2009, 284, 3998-4008.	1.6	168
3	Irreversible inhibition of cytosolic thioredoxin reductase 1 as a mechanistic basis for anticancer therapy. <i>Science Translational Medicine</i> , 2018, 10, .	5.8	147
4	Control of protein function through oxidation and reduction of persulfidated states. <i>Science Advances</i> , 2020, 6, eaax8358.	4.7	121
5	Substrate and inhibitor specificities differ between human cytosolic and mitochondrial thioredoxin reductases: Implications for development of specific inhibitors. <i>Free Radical Biology and Medicine</i> , 2011, 50, 689-699.	1.3	93
6	Selenocysteine Insertion at a Predefined UAG Codon in a Release Factor 1 (RF1)-depleted <i>Escherichia coli</i> Host Strain Bypasses Species Barriers in Recombinant Selenoprotein Translation. <i>Journal of Biological Chemistry</i> , 2017, 292, 5476-5487.	1.6	60
7	The Selenium-independent Inherent Pro-oxidant NADPH Oxidase Activity of Mammalian Thioredoxin Reductase and Its Selenium-dependent Direct Peroxidase Activities. <i>Journal of Biological Chemistry</i> , 2010, 285, 21708-21723.	1.6	57
8	Bicarbonate is essential for protein-tyrosine phosphatase 1B (PTP1B) oxidation and cellular signaling through EGF-triggered phosphorylation cascades. <i>Journal of Biological Chemistry</i> , 2019, 294, 12330-12338.	1.6	51
9	System-wide identification and prioritization of enzyme substrates by thermal analysis. <i>Nature Communications</i> , 2021, 12, 1296.	5.8	44
10	Direct Observation of Methylmercury and Auranofin Binding to Selenocysteine in Thioredoxin Reductase. <i>Inorganic Chemistry</i> , 2020, 59, 2711-2718.	1.9	43
11	Details in the catalytic mechanism of mammalian thioredoxin reductase 1 revealed using point mutations and juglone-coupled enzyme activities. <i>Free Radical Biology and Medicine</i> , 2016, 94, 110-120.	1.3	42
12	The conserved Trp114 residue of thioredoxin reductase 1 has a redox sensor-like function triggering oligomerization and crosslinking upon oxidative stress related to cell death. <i>Cell Death and Disease</i> , 2015, 6, e1616-e1616.	2.7	36
13	Thioredoxin reductase 1 and NADPH directly protect protein tyrosine phosphatase 1B from inactivation during H ₂ O ₂ exposure. <i>Journal of Biological Chemistry</i> , 2017, 292, 14371-14380.	1.6	36
14	Tagging recombinant proteins with a Sel-tag for purification, labeling with electrophilic compounds or radiolabeling with ¹¹ C. <i>Nature Protocols</i> , 2006, 1, 604-613.	5.5	35
15	Inhibition of thioredoxin reductase 1 by porphyrins and other small molecules identified by a high-throughput screening assay. <i>Free Radical Biology and Medicine</i> , 2011, 50, 1114-1123.	1.3	34
16	Homozygous mutation in TXNRD1 is associated with genetic generalized epilepsy. <i>Free Radical Biology and Medicine</i> , 2017, 106, 270-277.	1.3	31
17	Fragment-Based Discovery of a Regulatory Site in Thioredoxin Glutathione Reductase Acting as a "Doorstop" for NADPH Entry. <i>ACS Chemical Biology</i> , 2018, 13, 2190-2202.	1.6	25
18	Characterization of Lead Compounds Targeting the Selenoprotein Thioredoxin Glutathione Reductase for Treatment of Schistosomiasis. <i>ACS Infectious Diseases</i> , 2020, 6, 393-405.	1.8	24

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19	Indolin-2-one compounds targeting thioredoxin reductase as potential anticancer drug leads. <i>Oncotarget</i> , 2016, 7, 40233-40251.	0.8	23
20	Selective cellular probes for mammalian thioredoxin reductase TrxR1: Rational design of RX1, a modular 1,2-thiaselenane redox probe. <i>CheM</i> , 2022, 8, 1493-1517.	5.8	20
21	Selenolthiol and Dithiol C-Terminal Tetrapeptide Motifs for One-Step Purification and Labeling of Recombinant Proteins Produced in <i>E. coli</i> . <i>ChemBioChem</i> , 2006, 7, 1976-1981.	1.3	18
22	Comprehensive chemical proteomics analyses reveal that the new TRi-1 and TRi-2 compounds are more specific thioredoxin reductase 1 inhibitors than auranofin. <i>Redox Biology</i> , 2021, 48, 102184.	3.9	18
23	Serum thioredoxin reductase is highly increased in mice with hepatocellular carcinoma and its activity is restrained by several mechanisms. <i>Free Radical Biology and Medicine</i> , 2016, 99, 426-435.	1.3	17
24	Inhibition and crosslinking of the selenoprotein thioredoxin reductase-1 by p-benzoquinone. <i>Redox Biology</i> , 2020, 28, 101335.	3.9	17
25	Efficient selenocysteine-dependent reduction of toxoflavin by mammalian thioredoxin reductase. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018, 1862, 2511-2517.	1.1	15
26	Production and purification of homogenous recombinant human selenoproteins reveals a unique codon skipping event in <i>E. coli</i> and GPX4-specific affinity to bromosulphophthalein. <i>Redox Biology</i> , 2021, 46, 102070.	3.9	15
27	Preclinical PET imaging of EGFR levels: pairing a targeting with a non-targeting Sel-tagged Affibody-based tracer to estimate the specific uptake. <i>EJNMMI Research</i> , 2016, 6, 58.	1.1	13
28	Overexpression of Recombinant Selenoproteins in <i>E. coli</i> . <i>Methods in Molecular Biology</i> , 2018, 1661, 231-240.	0.4	13
29	Combining [11C]-Anx5 PET Imaging with Serum Biomarkers for Improved Detection in Live Mice of Modest Cell Death in Human Solid Tumor Xenografts. <i>PLoS ONE</i> , 2012, 7, e42151.	1.1	11
30	Identification and targeting of selective vulnerability rendered by tamoxifen resistance. <i>Breast Cancer Research</i> , 2020, 22, 80.	2.2	11
31	Site-specifically 11C-labeled Sel-tagged annexin A5 and a size-matched control for dynamic in vivo PET imaging of protein distribution in tissues prior to and after induced cell death. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013, 1830, 2562-2573.	1.1	8
32	Redox regulation of PTPN22 affects the severity of T-cell-dependent autoimmune inflammation. <i>ELife</i> , 2022, 11, .	2.8	7
33	Biochemical and structural characterizations of thioredoxin reductase selenoproteins of the parasitic filarial nematodes <i>Brugia malayi</i> and <i>Onchocerca volvulus</i> . <i>Redox Biology</i> , 2022, 51, 102278.	3.9	6
34	Qualitative Differences in Protection of PTP1B Activity by the Reductive Trx1 or TRP14 Enzyme Systems upon Oxidative Challenges with Polysulfides or H2O2 Together with Bicarbonate. <i>Antioxidants</i> , 2021, 10, 111.	2.2	5
35	Expressing recombinant selenoproteins using redefinition of a single UAG codon in an RF1-depleted <i>E. coli</i> host strain. <i>Methods in Enzymology</i> , 2022, 662, 95-118.	0.4	4