Elias Arnr

List of Publications by Year in Descending Order

180 papers	14,406 citations	55 h-index	117 g-index
210 ext. papers	16,109 ext. citations	7.4 avg, IF	6.86 L-index

#	Paper	IF	Citations
180	Expressing recombinant selenoproteins using redefinition of a single UAG codon in an RF1-depleted E. coli host strain.. *Methods in Enzymology*, **2022**, 662, 95-118	1.7	0
179	Cyclic 5-membered disulfides are not selective substrates of thioredoxin reductase, but are opened nonspecifically.. *Nature Communications*, **2022**, 13, 1754	17.4	3
178	Biochemical and structural characterizations of thioredoxin reductase selenoproteins of the parasitic filarial nematodes Brugia malayi and Onchocerca volvulus.. *Redox Biology*, **2022**, 51, 102278	11.3	0
177	Selective cellular probes for mammalian thioredoxin reductase TrxR1: Rational design of RX1, a modular 1,2-thiaselenane redox probe. *CheM*, **2022**,	16.2	3
176	Thioredoxin and glutathione reductases **2022**, 197-218		
175	Comprehensive chemical proteomics analyses reveal that the new TRi-1 and TRi-2 compounds are more specific thioredoxin reductase 1 inhibitors than auranofin. *Redox Biology*, **2021**, 48, 102184	11.3	3
174	Development of therapies for rare genetic disorders of GPX4: roadmap and opportunities. *Orphanet Journal of Rare Diseases*, **2021**, 16, 446	4.2	4
173	Evaluation of dithiothreitol-oxidizing capacity (DOC) as a serum biomarker for chronic hepatitis B in patients exhibiting normal alanine aminotransferase levels: a pilot study towards better monitoring of disease. *EClinicalMedicine*, **2021**, 42, 101180	11.3	
172	Effects of Mammalian Thioredoxin Reductase Inhibitors. *Handbook of Experimental Pharmacology*, **2021**, 264, 289-309	3.2	7
171	Comment on "Evidence that the ProPerDP method is inadequate for protein persulfidation detection due to lack of specificity". *Science Advances*, **2021**, 7,	14.3	2
170	Selective, Modular Probes for Thioredoxins Enabled by Rational Tuning of a Unique Disulfide Structure Motif. *Journal of the American Chemical Society*, **2021**, 143, 8791-8803	16.4	9
169	Molecular Basis for the Interactions of Human Thioredoxins with Their Respective Reductases. *Oxidative Medicine and Cellular Longevity*, **2021**, 2021, 6621292	6.7	2
168	Qualitative Differences in Protection of PTP1B Activity by the Reductive Trx1 or TRP14 Enzyme Systems upon Oxidative Challenges with Polysulfides or HO Together with Bicarbonate. *Antioxidants*, **2021**, 10,	7.1	4
167	System-wide identification and prioritization of enzyme substrates by thermal analysis. *Nature Communications*, **2021**, 12, 1296	17.4	16
166	Thioredoxin Reductase Inhibition for Cancer Therapy. *Annual Review of Pharmacology and Toxicology*, **2021**,	17.9	15
165	Production and purification of homogenous recombinant human selenoproteins reveals a unique codon skipping event in E. coli and GPX4-specific affinity to bromosulfophthalein. *Redox Biology*, **2021**, 46, 102070	11.3	4
164	Characterization of More Selective Central Nervous System Nrf2-Activating Novel Vinyl Sulfoximine Compounds Compared to Dimethyl Fumarate. *Neurotherapeutics*, **2020**, 17, 1142-1152	6.4	3

163	Comprehensive chemical proteomics for target deconvolution of the redox active drug auranofin. *Redox Biology*, **2020**, 32, 101491	11.3	27
162	Direct Observation of Methylmercury and Auranofin Binding to Selenocysteine in Thioredoxin Reductase. *Inorganic Chemistry*, **2020**, 59, 2711-2718	5.1	21
161	Characterization of Lead Compounds Targeting the Selenoprotein Thioredoxin Glutathione Reductase for Treatment of Schistosomiasis. *ACS Infectious Diseases*, **2020**, 6, 393-405	5.5	13
160	Common modifications of selenocysteine in selenoproteins. *Essays in Biochemistry*, **2020**, 64, 45-53	7.6	10
159	Perspectives of TrxR1-based cancer therapies **2020**, 639-667		7
158	Control of protein function through oxidation and reduction of persulfidated states. *Science Advances*, **2020**, 6, eaax8358	14.3	60
157	Identification and targeting of selective vulnerability rendered by tamoxifen resistance. *Breast Cancer Research*, **2020**, 22, 80	8.3	3
156	To inhibit TrxR1 is to inactivate STAT3-Inhibition of TrxR1 enzymatic function by STAT3 small molecule inhibitors. *Redox Biology*, **2020**, 36, 101646	11.3	8
155	Inhibition and crosslinking of the selenoprotein thioredoxin reductase-1 by p-benzoquinone. *Redox Biology*, **2020**, 28, 101335	11.3	12
154	Irreversible TrxR1 inhibitors block STAT3 activity and induce cancer cell death. *Science Advances*, **2020**, 6, eaax7945	14.3	21
153	Bicarbonate is essential for protein-tyrosine phosphatase 1B (PTP1B) oxidation and cellular signaling through EGF-triggered phosphorylation cascades. *Journal of Biological Chemistry*, **2019**, 294, 12330-12338	5.4	33
152	ProPerDP: A Protein Persulfide Detection Protocol. *Methods in Molecular Biology*, **2019**, 2007, 51-77	1.4	8
151	TrxR1, Gsr, and oxidative stress determine hepatocellular carcinoma malignancy. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 11408-11417	11.5	28
150	Which Antioxidant System Shapes Intracellular HO Gradients?. *Antioxidants and Redox Signaling*, **2019**, 31, 664-670	8.4	28
149	Repurposing of auranofin: Thioredoxin reductase remains a primary target of the drug. *Biochimie*, **2019**, 162, 46-54	4.6	61
148	Absence of TXNIP in Humans Leads to Lactic Acidosis and Low Serum Methionine Linked to Deficient Respiration on Pyruvate. *Diabetes*, **2019**, 68, 709-723	0.9	17
147	Thioredoxin-related protein of 14 kDa as a modulator of redox signalling pathways. *British Journal of Pharmacology*, **2019**, 176, 544-553	8.6	18
146	Cytotoxic unsaturated electrophilic compounds commonly target the ubiquitin proteasome system. *Scientific Reports*, **2019**, 9, 9841	4.9	12

145	Irreversible inhibition of cytosolic thioredoxin reductase 1 as a mechanistic basis for anticancer therapy. *Science Translational Medicine*, **2018**, 10,	17.5	106
144	The A to Z of modulated cell patterning by mammalian thioredoxin reductases. *Free Radical Biology and Medicine*, **2018**, 115, 484-496	7.8	44
143	Selenium Utilization by GPX4 Is Required to Prevent Hydroperoxide-Induced Ferroptosis. *Cell*, **2018**, 172, 409-422.e21	56.2	446
142	NADPH-dependent and -independent disulfide reductase systems. *Free Radical Biology and Medicine*, **2018**, 127, 248-261	7.8	41
141	Overexpression of Recombinant Selenoproteins in E. coli. *Methods in Molecular Biology*, **2018**, 1661, 231-240	14	6
140	Selective Evaluation of Thioredoxin Reductase Enzymatic Activities. *Methods in Molecular Biology*, **2018**, 1661, 301-309	1.4	7
139	Fragment-Based Discovery of a Regulatory Site in Thioredoxin Glutathione Reductase Acting as "Doorstop" for NADPH Entry. *ACS Chemical Biology*, **2018**, 13, 2190-2202	4.9	14
138	Efficient selenocysteine-dependent reduction of toxoflavin by mammalian thioredoxin reductase. *Biochimica Et Biophysica Acta - General Subjects*, **2018**, 1862, 2511-2517	4	12
137	Cross Talk in HEK293 Cells Between Nrf2, HIF, and NF-B Activities upon Challenges with Redox Therapeutics Characterized with Single-Cell Resolution. *Antioxidants and Redox Signaling*, **2017**, 26, 229-246	8.4	30
136	Cytosolic thioredoxin reductase 1 is required for correct disulfide formation in the ER. *EMBO Journal*, **2017**, 36, 693-702	13	49
135	Selenocysteine Insertion at a Predefined UAG Codon in a Release Factor 1 (RF1)-depleted Host Strain Bypasses Species Barriers in Recombinant Selenoprotein Translation. *Journal of Biological Chemistry*, **2017**, 292, 5476-5487	5.4	34
134	Homozygous mutation in TXNRD1 is associated with genetic generalized epilepsy. *Free Radical Biology and Medicine*, **2017**, 106, 270-277	7.8	22
133	Selenium Metabolism in Herbivores and Higher Trophic Levels Including Mammals. *Plant Ecophysiology*, **2017**, 123-139		2
132	Rutin protects against HO-triggered impaired relaxation of placental arterioles and induces Nrf2-mediated adaptation in Human Umbilical Vein Endothelial Cells exposed to oxidative stress. *Biochimica Et Biophysica Acta - General Subjects*, **2017**, 1861, 1177-1189	4	23
131	Time- and cell-resolved dynamics of redox-sensitive Nrf2, HIF and NF-B activities in 3D spheroids enriched for cancer stem cells. *Redox Biology*, **2017**, 12, 403-409	11.3	23
130	Thioredoxin reductase 1 and NADPH directly protect protein tyrosine phosphatase 1B from inactivation during HO exposure. *Journal of Biological Chemistry*, **2017**, 292, 14371-14380	5.4	26
129	Hepatocyte Hyperproliferation upon Liver-Specific Co-disruption of Thioredoxin-1, Thioredoxin Reductase-1, and Glutathione Reductase. *Cell Reports*, **2017**, 19, 2771-2781	10.6	42
128	Targeting the Selenoprotein Thioredoxin Reductase 1 for Anticancer Therapy. *Advances in Cancer Research*, **2017**, 136, 139-151	5.9	40

127	H2O2, Thioredoxin, and Signaling **2017**, 387-402		
126	Preclinical PET imaging of EGFR levels: pairing a targeting with a non-targeting Sel-tagged Affibody-based tracer to estimate the specific uptake. *EJNMMI Research*, **2016**, 6, 58	3.6	11
125	Thioredoxin reductase 1 suppresses adipocyte differentiation and insulin responsiveness. *Scientific Reports*, **2016**, 6, 28080	4.9	26
124	Thioredoxin Reductase 1 as an Anticancer Drug Target **2016**, 199-209		2
123	Inhibitory nitrosylation of mammalian thioredoxin reductase 1: Molecular characterization and evidence for its functional role in cellular nitroso-redox imbalance. *Free Radical Biology and Medicine*, **2016**, 97, 375-385	7.8	25
122	Selenoprotein Gene Nomenclature. *Journal of Biological Chemistry*, **2016**, 291, 24036-24040	5.4	147
121	Entinostat up-regulates the CAMP gene encoding LL-37 via activation of STAT3 and HIF-1 transcription factors. *Scientific Reports*, **2016**, 6, 33274	4.9	25
120	A novel persulfide detection method reveals protein persulfide- and polysulfide-reducing functions of thioredoxin and glutathione systems. *Science Advances*, **2016**, 2, e1500968	14.3	175
119	Details in the catalytic mechanism of mammalian thioredoxin reductase 1 revealed using point mutations and juglone-coupled enzyme activities. *Free Radical Biology and Medicine*, **2016**, 94, 110-20	7.8	35
118	Paradoxical Roles of Antioxidant Enzymes: Basic Mechanisms and Health Implications. *Physiological Reviews*, **2016**, 96, 307-64	47.9	196
117	Indolin-2-one compounds targeting thioredoxin reductase as potential anticancer drug leads. *Oncotarget*, **2016**, 7, 40233-40251	3.3	20
116	Chemical Reactivity Window Determines Prodrug Efficiency toward Glutathione Transferase Overexpressing Cancer Cells. *Molecular Pharmaceutics*, **2016**, 13, 2010-25	5.6	16
115	Serum thioredoxin reductase is highly increased in mice with hepatocellular carcinoma and its activity is restrained by several mechanisms. *Free Radical Biology and Medicine*, **2016**, 99, 426-435	7.8	12
114	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. *Cell Death and Disease*, **2015**, 6, e1616	9.8	30
113	Redox effects and cytotoxic profiles of MJ25 and auranofin towards malignant melanoma cells. *Oncotarget*, **2015**, 6, 16488-506	3.3	20
112	Dietary methionine can sustain cytosolic redox homeostasis in the mouse liver. *Nature Communications*, **2015**, 6, 6479	17.4	67
111	TrxR1 as a potent regulator of the Nrf2-Keap1 response system. *Antioxidants and Redox Signaling*, **2015**, 23, 823-53	8.4	149
110	Serum thioredoxin reductase levels increase in response to chemically induced acute liver injury. *Biochimica Et Biophysica Acta - General Subjects*, **2014**, 1840, 2105-11	4	22

109	Cisplatin and oxaliplatin are toxic to cochlear outer hair cells and both target thioredoxin reductase in organ of Corti cultures. *Acta Oto-Laryngologica*, **2014**, 134, 448-54	1.6	26
108	ROS-dependent activation of JNK converts p53 into an efficient inhibitor of oncogenes leading to robust apoptosis. *Cell Death and Differentiation*, **2014**, 21, 612-23	12.7	151
107	The 19S Deubiquitinase inhibitor b-AP15 is enriched in cells and elicits rapid commitment to cell death. *Molecular Pharmacology*, **2014**, 85, 932-45	4.3	51
106	Sepp1(UF) forms are N-terminal selenoprotein P truncations that have peroxidase activity when coupled with thioredoxin reductase-1. *Free Radical Biology and Medicine*, **2014**, 69, 67-76	7.8	33
105	Redox active motifs in selenoproteins. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 6976-81	11.5	39
104	Thioredoxin-related protein of 14 kDa is an efficient L-cystine reductase and S-denitrosylase. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 6964-9	11.5	88
103	Sec-containing TrxR1 is essential for self-sufficiency of cells by control of glucose-derived H2O2. *Cell Death and Disease*, **2014**, 5, e1235	9.8	22
102	Thioredoxin System **2014**, 1-4		
101	A Txnrd1-dependent metabolic switch alters hepatic lipogenesis, glycogen storage, and detoxification. *Free Radical Biology and Medicine*, **2013**, 63, 369-80	7.8	52
100	Redox activation of Fe(III)-thiosemicarbazones and Fe(III)-bleomycin by thioredoxin reductase: specificity of enzymatic redox centers and analysis of reactive species formation by ESR spin trapping. *Free Radical Biology and Medicine*, **2013**, 60, 183-94	7.8	17
99	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. *Biochimica Et Biophysica Acta - General Subjects*, **2013**, 1830, 2562-73	4	7
98	Simvastatin inhibits the core promoter of the TXNRD1 gene and lowers cellular TrxR activity in HepG2 cells. *Biochemical and Biophysical Research Communications*, **2013**, 430, 90-4	3.4	7
97	APR-246/PRIMA-1MET inhibits thioredoxin reductase 1 and converts the enzyme to a dedicated NADPH oxidase. *Cell Death and Disease*, **2013**, 4, e881	9.8	108
96	Multilevel regulation of 2-Cys peroxiredoxin reaction cycle by S-nitrosylation. *Journal of Biological Chemistry*, **2013**, 288, 11312-24	5.4	47
95	The rare TXNRD1_v3 ("v3") splice variant of human thioredoxin reductase 1 protein is targeted to membrane rafts by N-acylation and induces filopodia independently of its redox active site integrity. *Journal of Biological Chemistry*, **2013**, 288, 10002-10011	5.4	17
94	Wobble decoding by the Escherichia coli selenocysteine insertion machinery. *Nucleic Acids Research*, **2013**, 41, 9800-11	20.1	15
93	Selective activation of oxidized PTP1B by the thioredoxin system modulates PDGF-□receptor tyrosine kinase signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 13398-403	11.5	69
92	The selenoprotein thioredoxin reductase as a key regulator of cellular signaling pathways **2013**, 167-169		

91	Pyrroloquinoline quinone modulates the kinetic parameters of the mammalian selenoprotein thioredoxin reductase 1 and is an inhibitor of glutathione reductase. *Biochemical Pharmacology*, **2012**, 83, 815-20	6	30
90	Biochemical discrimination between selenium and sulfur 2: mechanistic investigation of the selenium specificity of human selenocysteine lyase. *PLoS ONE*, **2012**, 7, e30528	3.7	8
89	Biochemical discrimination between selenium and sulfur 1: a single residue provides selenium specificity to human selenocysteine lyase. *PLoS ONE*, **2012**, 7, e30581	3.7	22
88	Combining [11C]-AnxA5 PET imaging with serum biomarkers for improved detection in live mice of modest cell death in human solid tumor xenografts. *PLoS ONE*, **2012**, 7, e42151	3.7	11
87	Hepatocyte DNA replication in growing liver requires either glutathione or a single allele of txnrd1. *Free Radical Biology and Medicine*, **2012**, 52, 803-10	7.8	52
86	Thiophosphate and selenite conversely modulate cell death induced by glutathione depletion or cisplatin: effects related to activity and Sec contents of thioredoxin reductase. *Biochemical Journal*, **2012**, 447, 167-74	3.8	16
85	HER2-positive tumors imaged within 1 hour using a site-specifically 11C-labeled Sel-tagged affibody molecule. *Journal of Nuclear Medicine*, **2012**, 53, 1446-53	8.9	26
84	Thioredoxin reductase inhibition elicits Nrf2-mediated responses in Clara cells: implications for oxidant-induced lung injury. *Antioxidants and Redox Signaling*, **2012**, 17, 1407-16	8.4	43
83	Human Protein Atlas of redox systems - what can be learnt?. *Biochimica Et Biophysica Acta - General Subjects*, **2011**, 1810, 111-38	4	35
82	Substrate and inhibitor specificities differ between human cytosolic and mitochondrial thioredoxin reductases: Implications for development of specific inhibitors. *Free Radical Biology and Medicine*, **2011**, 50, 689-99	7.8	81
81	Inhibition of thioredoxin reductase 1 by porphyrins and other small molecules identified by a high-throughput screening assay. *Free Radical Biology and Medicine*, **2011**, 50, 1114-23	7.8	25
80	History of Selenium Research **2011**, 1-19		
79	Effects of selenite and chelating agents on mammalian thioredoxin reductase inhibited by mercury: implications for treatment of mercury poisoning. *FASEB Journal*, **2011**, 25, 370-81	0.9	90
78	Redox pioneer: Professor Arne Holmgren. *Antioxidants and Redox Signaling*, **2011**, 15, 845-51	8.4	2
77	Selenoprotein TRXR-1 and GSR-1 are essential for removal of old cuticle during molting in Caenorhabditis elegans. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 1064-9	11.5	55
76	The selenium-independent inherent pro-oxidant NADPH oxidase activity of mammalian thioredoxin reductase and its selenium-dependent direct peroxidase activities. *Journal of Biological Chemistry*, **2010**, 285, 21708-23	5.4	49
75	Noble metal targeting of thioredoxin reductase--covalent complexes with thioredoxin and thioredoxin-related protein of 14 kDa triggered by cisplatin. *Free Radical Biology and Medicine*, **2010**, 49, 1765-78	7.8	72
74	The Interactions of Thioredoxin Reductase with Quinones and Acrolein: Covalent Adducts and Stimulation of NADPH Oxidase Activity. *Free Radical Biology and Medicine*, **2010**, 49, S98-S99	7.8	2

73	Selenoproteins-What unique properties can arise with selenocysteine in place of cysteine?. *Experimental Cell Research*, **2010**, 316, 1296-303	4.2	211
72	p53-dependent inhibition of TrxR1 contributes to the tumor-specific induction of apoptosis by RITA. *Cell Cycle*, **2009**, 8, 3584-91	4.7	77
71	Cisplatin and oxaliplatin toxicity: importance of cochlear kinetics as a determinant for ototoxicity. *Journal of the National Cancer Institute*, **2009**, 101, 37-47	9.7	84
70	Crystal structure and catalysis of the selenoprotein thioredoxin reductase 1. *Journal of Biological Chemistry*, **2009**, 284, 3998-4008	5.4	146
69	Red wine triggers cell death and thioredoxin reductase inhibition: effects beyond resveratrol and SIRT1. *Experimental Cell Research*, **2009**, 315, 1360-71	4.2	20
68	The human thioredoxin reductase-1 splice variant TXNRD1_v3 is an atypical inducer of cytoplasmic filaments and cell membrane filopodia. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2009** , 1793, 1588-96	4.9	21
67	Highly active dimeric and low-activity tetrameric forms of selenium-containing rat thioredoxin reductase 1. *Free Radical Biology and Medicine*, **2009**, 46, 893-904	7.8	30
66	High levels of thioredoxin reductase 1 modulate drug-specific cytotoxic efficacy. *Free Radical Biology and Medicine*, **2009**, 47, 1661-71	7.8	93
65	Prolonged antigen-exposure with carbohydrate particle based vaccination prevents allergic immune responses in sensitized mice. *Allergy: European Journal of Allergy and Clinical Immunology*, **2009**, 64, 919-26	9.3	36
64	Focus on mammalian thioredoxin reductases--important selenoproteins with versatile functions. *Biochimica Et Biophysica Acta - General Subjects*, **2009**, 1790, 495-526	4	472
63	Special issue on selenoprotein expression and function. *Biochimica Et Biophysica Acta - General Subjects*, **2009**, 1790, 1387-8	4	2
62	Structure mechanism insights and the role of nitric oxide donation guide the development of oxadiazole-2-oxides as therapeutic agents against schistosomiasis. *Journal of Medicinal Chemistry*, **2009**, 52, 6474-83	8.3	66
61	Mitochondrial peroxiredoxin 3 is rapidly oxidized in cells treated with isothiocyanates. *Free Radical Biology and Medicine*, **2008**, 45, 494-502	7.8	53
60	The thioredoxin reductase inhibitor auranofin triggers apoptosis through a Bax/Bak-dependent process that involves peroxiredoxin 3 oxidation. *Biochemical Pharmacology*, **2008**, 76, 1097-109	6	129
59	Cell death by SecTRAPs: thioredoxin reductase as a prooxidant killer of cells. *PLoS ONE*, **2008**, 3, e1846	3.7	122
58	Induction of cell membrane protrusions by the N-terminal glutaredoxin domain of a rare splice variant of human thioredoxin reductase 1. *Journal of Biological Chemistry*, **2008**, 283, 2814-21	5.4	35
57	Thioredoxin glutathione reductase from Schistosoma mansoni: an essential parasite enzyme and a key drug target. *PLoS Medicine*, **2007**, 4, e206	11.6	234
56	Titration and conditional knockdown of the prfB gene in Escherichia coli: effects on growth and overproduction of the recombinant mammalian selenoprotein thioredoxin reductase. *Applied and Environmental Microbiology*, **2007**, 73, 432-41	4.8	15

55	Differential regulation of expression of cytosolic and mitochondrial thioredoxin reductase in rat liver and kidney. *Archives of Biochemistry and Biophysics*, **2007**, 459, 178-88	4.1	27
54	Studies of an active site mutant of the selenoprotein thioredoxin reductase: the Ser-Cys-Cys-Ser motif of the insect orthologue is not sufficient to replace the Cys-Sec dyad in the mammalian enzyme. *Free Radical Biology and Medicine*, **2006**, 41, 649-56	7.8	20
53	The thioredoxin system in cancer. *Seminars in Cancer Biology*, **2006**, 16, 420-6	12.7	409
52	Selenolthiol and dithiol C-terminal tetrapeptide motifs for one-step purification and labeling of recombinant proteins produced in E. coli. *ChemBioChem*, **2006**, 7, 1976-81	3.8	17
51	Interactions of nitroaromatic compounds with the mammalian selenoprotein thioredoxin reductase and the relation to induction of apoptosis in human cancer cells. *Journal of Biological Chemistry*, **2006**, 281, 5593-603	5.4	93
50	Tagging recombinant proteins with a Sel-tag for purification, labeling with electrophilic compounds or radiolabeling with 11C. *Nature Protocols*, **2006**, 1, 604-13	18.8	33
49	Biotechnology of selenocysteine **2006**, 221-230		
48	Selenocysteine in proteins-properties and biotechnological use. *Biochimica Et Biophysica Acta - General Subjects*, **2005**, 1726, 1-13	4	249
47	A mouse model for in vivo tracking of the major dust mite allergen Der p 2 after inhalation. *FEBS Journal*, **2005**, 272, 3449-60	5.7	12
46	Inhibition of thioredoxin reductase but not of glutathione reductase by the major classes of alkylating and platinum-containing anticancer compounds. *Free Radical Biology and Medicine*, **2005**, 39, 696-703	7.8	178
45	Regulation of the mammalian selenoprotein thioredoxin reductase 1 in relation to cellular phenotype, growth, and signaling events. *Antioxidants and Redox Signaling*, **2004**, 6, 41-52	8.4	151
44	Overexpression of enzymatically active human cytosolic and mitochondrial thioredoxin reductase in HEK-293 cells. Effect on cell growth and differentiation. *Journal of Biological Chemistry*, **2004**, 279, 54510-7	5.4	50
43	Exploiting the 21st amino acid-purifying and labeling proteins by selenolate targeting. *Nature Methods*, **2004**, 1, 61-6	21.6	82
42	Thioredoxin reductase 1 is upregulated in atherosclerotic plaques: specific induction of the promoter in human macrophages by oxidized low-density lipoproteins. *Free Radical Biology and Medicine*, **2004**, 37, 71-85	7.8	35
41	Assessment of production conditions for efficient use of Escherichia coli in high-yield heterologous recombinant selenoprotein synthesis. *Applied and Environmental Microbiology*, **2004**, 70, 5159-67	4.8	73
40	Expression of selenocysteine-containing glutathione S-transferase in Escherichia coli. *Biochemical and Biophysical Research Communications*, **2004**, 321, 94-101	3.4	28
39	Interactions of quinones with thioredoxin reductase: a challenge to the antioxidant role of the mammalian selenoprotein. *Journal of Biological Chemistry*, **2004**, 279, 2583-92	5.4	110
38	Evidence for intriguingly complex transcription of human thioredoxin reductase 1. *Free Radical Biology and Medicine*, **2004**, 36, 641-56	7.8	76

37	Rapid induction of cell death by selenium-compromised thioredoxin reductase 1 but not by the fully active enzyme containing selenocysteine. *Journal of Biological Chemistry*, **2003**, 278, 15966-72	5.4	131
36	Regeneration of the antioxidant ubiquinol by lipoamide dehydrogenase, thioredoxin reductase and glutathione reductase. *BioFactors*, **2003**, 18, 45-50	6.1	46
35	The mammalian cytosolic selenoenzyme thioredoxin reductase reduces ubiquinone. A novel mechanism for defense against oxidative stress. *Journal of Biological Chemistry*, **2003**, 278, 2141-6	5.4	143
34	Active sites of thioredoxin reductases: why selenoproteins?. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 12618-23	11.5	172
33	Selenocysteine Insertion and Reactivity: Mammalian Thioredoxin Reductases in Relation to Cellular Redox Signaling **2003**, 27-45		1
32	Recombinant expression of mammalian selenocysteine-containing thioredoxin reductase and other selenoproteins in Escherichia coli. *Methods in Enzymology*, **2002**, 347, 226-35	1.7	39
31	Measurement of thioredoxin and thioredoxin reductase. *Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al]*, **2001**, Chapter 7, Unit 7.4.	1	59
30	Analysis of the inhibition of mammalian thioredoxin, thioredoxin reductase, and glutaredoxin by cis-diamminedichloroplatinum (II) and its major metabolite, the glutathione-platinum complex. *Free Radical Biology and Medicine*, **2001**, 31, 1170-8	7.8	140
29	Reactive oxygen species, antioxidants, and the mammalian thioredoxin system. *Free Radical Biology and Medicine*, **2001**, 31, 1287-312	7.8	1903
28	The core promoter of human thioredoxin reductase 1: cloning, transcriptional activity, and Oct-1, Sp1, and Sp3 binding reveal a housekeeping-type promoter for the AU-rich element-regulated gene. *Journal of Biological Chemistry*, **2001**, 276, 30542-51	5.4	66
27	Prominent expression of the selenoprotein thioredoxin reductase in the medullary rays of the rat kidney and thioredoxin reductase mRNA variants differing at the 5? untranslated region. *Biochemical Journal*, **2000**, 347, 661	3.8	18
26	Prominent expression of the selenoprotein thioredoxin reductase in the medullary rays of the rat kidney and thioredoxin reductase mRNA variants differing at the 5? untranslated region. *Biochemical Journal*, **2000**, 347, 661-668	3.8	28
25	Physiological functions of thioredoxin and thioredoxin reductase. *FEBS Journal*, **2000**, 267, 6102-9		1793
24	Structure and mechanism of mammalian thioredoxin reductase: the active site is a redox-active selenolthiol/selenenylsulfide formed from the conserved cysteine-selenocysteine sequence. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 5854-9	11.5	382
23	Truncated thioredoxin is a mitogenic cytokine for resting human peripheral blood mononuclear cells and is present in human plasma. *Journal of Biological Chemistry*, **2000**, 275, 37474-80	5.4	85
22	Superoxide production by dinitrophenyl-derivatized thioredoxin reductase--a model for the mechanism and correlation to immunostimulation by dinitrohalobenzenes. *BioFactors*, **1999**, 10, 219-26	6.1	26
21	Preparation and assay of mammalian thioredoxin and thioredoxin reductase. *Methods in Enzymology*, **1999**, 300, 226-39	1.7	256
20	High-level expression in Escherichia coli of selenocysteine-containing rat thioredoxin reductase utilizing gene fusions with engineered bacterial-type SECIS elements and co-expression with the selA, selB and selC genes. *Journal of Molecular Biology*, **1999**, 292, 1003-16	6.5	207

19	Mammalian thioredoxin reductase is irreversibly inhibited by dinitrohalobenzenes by alkylation of both the redox active selenocysteine and its neighboring cysteine residue. *Journal of Biological Chemistry*, **1998**, 273, 10835-42	5.4	169
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17	On the phosphorylation of 2-chlorodeoxyadenosine (CdA) and its correlation with clinical response in leukemia treatment. *Leukemia and Lymphoma*, **1996**, 21, 225-31	1.9	26
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3	Cyclic 5-Membered Disulfides Are Not Selective Substrates of Thioredoxin Reductase, but Are Opened Nonspecifically by Thiols		2
2	System-wide identification and prioritization of enzyme substrates by thermal analysis (SIESTA)		2