Britt-Marie SjÃ¶berg

List of Publications by Year
in descending order

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119 papers	5,554 citations	40 h-index	69 g-index
		76326	91884

128 all docs	128 docs citations	128 times ranked	3078 citing authors

#	Article	IF	Citations
1	Structural and Biochemical Investigation of Class I Ribonucleotide Reductase from the Hyperthermophile <i>Aquifex aeolicus</i>. Biochemistry, 2022, 61, 92-106.	2.5	6
2	A nucleotide-sensing oligomerization mechanism that controls NrdR-dependent transcription of ribonucleotide reductases. Nature Communications, 2022, 13, 2700.	12.8	2
3	Solution Structure of the dATP-Inactivated Class I Ribonucleotide Reductase From Leeuwenhoekiella blandensis by SAXS and Cryo-Electron Microscopy. Frontiers in Molecular Biosciences, 2021, 8, 713608.	3.5	2
4	A ribonucleotide reductase from Clostridium botulinum reveals distinct evolutionary pathways to regulation via the overall activity site. Journal of Biological Chemistry, 2020, 295, 15576-15587.	3.4	12
5	Class Id ribonucleotide reductase utilizes a Mn2(IV,III) cofactor and undergoes large conformational changes on metal loading. Journal of Biological Inorganic Chemistry, 2019, 24, 863-877.	2.6	10
6	Compounds with capacity to quench the tyrosyl radical in Pseudomonas aeruginosa ribonucleotide reductase. Journal of Biological Inorganic Chemistry, 2019, 24, 841-848.	2.6	3
7	Metal-free ribonucleotide reduction powered by a DOPA radical in Mycoplasma pathogens. Nature, 2018, 563, 416-420.	27.8	50
8	A glutaredoxin domain fused to the radical-generating subunit of ribonucleotide reductase (RNR) functions as an efficient RNR reductant. Journal of Biological Chemistry, 2018, 293, 15889-15900.	3.4	15
9	Novel ATP-cone-driven allosteric regulation of ribonucleotide reductase via the radical-generating subunit. ELife, 2018, 7, .	6.0	40
10	A unique cysteine-rich zinc finger domain present in a majority of class II ribonucleotide reductases mediates catalytic turnover. Journal of Biological Chemistry, 2017, 292, 19044-19054.	3.4	14
11	Structural Mechanism of Allosteric Activity Regulation in a Ribonucleotide Reductase with Double ATP Cones. Structure, 2016, 24, 906-917.	3.3	28
12	A Bioanalytical Method for Quantification of Thioredoxins in Bacillus anthracis by Digestion with Immobilized Pepsin and LCâ€“MS/MS and On-line LC/LCâ€“MS/MS. Chromatographia, 2016, 79, 383-393.	1.3	1
13	Biochemical Characterization of the Split Class II Ribonucleotide Reductase from Pseudomonas aeruginosa. PLoS ONE, 2015, 10, e0134293.	2.5	7
14	Diversity in Overall Activity Regulation of Ribonucleotide Reductase. Journal of Biological Chemistry, 2015, 290, 17339-17348.	3.4	39
15	The Origin and Evolution of Ribonucleotide Reduction. Life, 2015, 5, 604-636.	2.4	74
16	The Crystal Structure of Thermotoga maritima Class III Ribonucleotide Reductase Lacks a Radical Cysteine Pre-Positioned in the Active Site. PLoS ONE, 2015, 10, e0128199.	2.5	10
17	Semiquinone-induced Maturation of Bacillus anthracis Ribonucleotide Reductase by a Superoxide Intermediate. Journal of Biological Chemistry, 2014, 289, 31940-31949.	3.4	16
18	A Rare Combination of Ribonucleotide Reductases in the Social Amoeba Dictyostelium discoideum. Journal of Biological Chemistry, 2013, 288, 8198-8208.	3.4	12

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19	A Metagenomics Transect into the Deepest Point of the Baltic Sea Reveals Clear Stratification of Microbial Functional Capacities. PLoS ONE, 2013, 8, e74983.	2.5	48
20	Ribonucleotide Reductase. , 2013, , 1838-1850.		0
21	Bacillus anthracis Thioredoxin Systems, Characterization and Role as Electron Donors for Ribonucleotide Reductase. Journal of Biological Chemistry, 2012, 287, 39686-39697.	3.4	33
22	Discovery of antimicrobial ribonucleotide reductase inhibitors by screening in microwell format. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9798-9803.	7.1	26
23	Use of Structural Phylogenetic Networks for Classification of the Ferritin-like Superfamily. Journal of Biological Chemistry, 2012, 287, 20565-20575.	3.4	66
24	DNA building blocks: keeping control of manufacture. Critical Reviews in Biochemistry and Molecular Biology, 2012, 47, 50-63.	5.2	212
25	Assembly of a fragmented ribonucleotide reductase by protein interaction domains derived from a mobile genetic element. Nucleic Acids Research, 2011, 39, 1381-1389.	14.5	6
26	Shift in Ribonucleotide Reductase Gene Expression in Pseudomonas aeruginosa during Infection. Infection and Immunity, 2011, 79, 2663-2669.	2.2	35
27	NrdH-Redoxin Protein Mediates High Enzyme Activity in Manganese-reconstituted Ribonucleotide Reductase from Bacillus anthracis. Journal of Biological Chemistry, 2011, 286, 33053-33060.	3.4	31
28	Ribonucleotide reduction - horizontal transfer of a required function spans all three domains. BMC Evolutionary Biology, 2010, 10, 383.	3.2	61
29	Highâ€resolution crystal structures of the flavoprotein NrdI in oxidized and reduced states â€" an unusual flavodoxin. FEBS Journal, 2010, 277, 4265-4277.	4.7	33
30	Antibacterial activity of radical scavengers against class Ib ribonucleotide reductase from<i>Bacillus anthracis</i>. Biological Chemistry, 2010, 391, 229-234.	2.5	10
31	Subunit and small-molecule interaction of ribonucleotide reductases via surface plasmon resonance biosensor analyses. Protein Engineering, Design and Selection, 2010, 23, 633-641.	2.1	10
32	A Never-Ending Story. Science, 2010, 329, 1475-1476.	12.6	20
33	RNRdb, a curated database of the universal enzyme family ribonucleotide reductase, reveals a high level of misannotation in sequences deposited to Genbank. BMC Genomics, 2009, 10, 589.	2.8	109
34	Oligomerization Status Directs Overall Activity Regulation of the Escherichia coli Class Ia Ribonucleotide Reductase. Journal of Biological Chemistry, 2008, 283, 35310-35318.	3.4	75
35	NrdI Essentiality for Class Ib Ribonucleotide Reduction in <i>Streptococcus pyogenes</i>. Journal of Bacteriology, 2008, 190, 4849-4858.	2.2	62
36	A Functional Homing Endonuclease in the Bacillus anthracis nrdE Group I Intron. Journal of Bacteriology, 2007, 189, 5293-5301.	2.2	14

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37	Unconventional GIY-YIG homing endonuclease encoded in group I introns in closely related strains of the Bacillus cereus group. Nucleic Acids Research, 2007, 36, 300-310.	14.5	9
38	Self-Splicing of the Bacteriophage T4 Group I Introns Requires Efficient Translation of the Pre-mRNA In Vivo and Correlates with the Growth State of the Infected Bacterium. Journal of Bacteriology, 2007, 189, 980-990.	2.2	23
39	Insertion of a homing endonuclease creates a genes-in-pieces ribonucleotide reductase that retains function. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6176-6181.	7.1	35
40	NrdR Controls Differential Expression of the Escherichia coli Ribonucleotide Reductase Genes. Journal of Bacteriology, 2007, 189, 5012-5021.	2.2	76
41	Ribonucleotide Reductase Modularity. Journal of Biological Chemistry, 2006, 281, 25287-25296.	3.4	30
42	Two Proteins Mediate Class II Ribonucleotide Reductase Activity in Pseudomonas aeruginosa. Journal of Biological Chemistry, 2005, 280, 16571-16578.	3.4	29
43	Nucleotide-dependent Formation of Catalytically Competent Dimers from Engineered Monomeric Ribonucleotide Reductase Protein R1. Journal of Biological Chemistry, 2005, 280, 14997-15003.	3.4	10
44	Efficient growth inhibition of Bacillus anthracis by knocking out the ribonucleotide reductase tyrosyl radical. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17946-17951.	7.1	39
45	A New Tyrosyl Radical on Phe208 as Ligand to the Diiron Center in Escherichia coli Ribonucleotide Reductase, Mutant R2-Y122H. Journal of Biological Chemistry, 2005, 280, 11233-11246.	3.4	13
46	SegH and Hef: two novel homing endonucleases whose genes replace the mobC and mobE genes in several T4-related phages. Nucleic Acids Research, 2005, 33, 6203-6213.	14.5	29
47	A method to find tissue-specific novel sites of selective adenosine deamination. Nucleic Acids Research, 2005, 33, e167-e167.	14.5	28
48	Distribution, Sequence Homology, and Homing of Group I Introns among T-even-like Bacteriophages. Journal of Biological Chemistry, 2004, 279, 22218-22227.	3.4	41
49	Mutant R1 Proteins from Escherichia coli Class Ia Ribonucleotide Reductase with Altered Responses to dATP Inhibition. Journal of Biological Chemistry, 2004, 279, 14496-14501.	3.4	15
50	Enhancement by Effectors and Substrate Nucleotides of R1-R2 Interactions in Escherichia coli Class Ia Ribonucleotide Reductase. Journal of Biological Chemistry, 2004, 279, 31050-31057.	3.4	17
51	Correlation of sister chromatid exchange formation through homologous recombination with ribonucleotide reductase inhibition. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2004, 547, 101-107.	1.0	20
52	Structural and Mutational Studies of the Carboxylate Cluster in Iron-Free Ribonucleotide Reductase R2. Biochemistry, 2004, 43, 7966-7972.	2.5	18
53	Protein thiyl radicals in disordered systems: A comparative EPR study at low temperature. Physical Chemistry Chemical Physics, 2003, 5, 2442-2453.	2.8	43
54	In Vivo Assay for Low-Activity Mutant Forms of Escherichia coli Ribonucleotide Reductase. Journal of Bacteriology, 2003, 185, 1167-1173.	2.2	18

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55	A metal-binding site in the catalytic subunit of anaerobic ribonucleotide reductase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3826-3831.	7.1	29
56	[1] Thiols in redox mechanism of ribonucleotide reductase. Methods in Enzymology, 2002, 348, 1-21.	1.0	15
57	The Conserved Active Site Asparagine in Class I Ribonucleotide Reductase Is Essential for Catalysis. Journal of Biological Chemistry, 2002, 277, 5749-5755.	3.4	22
58	Crystal Structure of the Di-iron/Radical Protein of Ribonucleotide Reductase from Corynebacterium ammoniagenes,. Biochemistry, 2002, 41, 1381-1389.	2.5	80
59	Generation and Electron Paramagnetic Resonance Spin Trapping Detection of Thiyl Radicals in Model Proteins and in the R1 Subunit of Escherichia coli Ribonucleotide Reductase. Archives of Biochemistry and Biophysics, 2002, 397, 57-68.	3.0	25
60	Protein thiyl radicals directly observed by EPR spectroscopy. Archives of Biochemistry and Biophysics, 2002, 403, 141-144.	3.0	35
61	The Evolution of the Ribonucleotide Reductases: Much Ado About Oxygen. Journal of Molecular Evolution, 2002, 55, 180-196.	1.8	55
62	Peroxyl adduct radicals formed in the iron/oxygen reconstitution reaction of mutant ribonucleotide reductase R2 proteins from Escherichia coli. Journal of Biological Inorganic Chemistry, 2002, 7, 74-82.	2.6	6
63	Confounded cytosine! Tinkering and the evolution of DNA. Nature Reviews Molecular Cell Biology, 2001, 2, 147-151.	37.0	61
64	Structural Basis for Allosteric Substrate Specificity Regulation in Anaerobic Ribonucleotide Reductases. Structure, 2001, 9, 739-750.	3.3	51
65	Restoring Proper Radical Generation by Azide Binding to the Iron Site of the E238A Mutant R2 Protein of Ribonucleotide Reductase fromEscherichia coli. Journal of Biological Chemistry, 2001, 276, 26852-26859.	3.4	23
66	Two Active Site Asparagines Are Essential for the Reaction Mechanism of the Class III Anaerobic Ribonucleotide Reductase from Bacteriophage T4. Journal of Biological Chemistry, 2001, 276, 40457-40463.	3.4	11
67	Methyl-RNA: an evolutionary bridge between RNA and DNA?. Chemistry and Biology, 2000, 7, R207-R216.	6.0	43
68	Cysteines Involved in Radical Generation and Catalysis of Class III Anaerobic Ribonucleotide Reductase. Journal of Biological Chemistry, 2000, 275, 19449-19455.	3.4	25
69	Allosteric Regulation of the Class III Anaerobic Ribonucleotide Reductase from Bacteriophage T4. Journal of Biological Chemistry, 2000, 275, 19443-19448.	3.4	21
70	The Active Form of the R2F Protein of Class Ib Ribonucleotide Reductase from Corynebacterium ammoniagenesIs a Diferric Protein. Journal of Biological Chemistry, 2000, 275, 25365-25371.	3.4	58
71	A Glycyl Radical Site in the Crystal Structure of a Class III Ribonucleotide Reductase. Science, 1999, 283, 1499-1504.	12.6	188
72	The Crystal Structure of an Azide Complex of the Diferrous R2 Subunit of Ribonucleotide Reductase Displays a Novel Carboxylate Shift with Important Mechanistic Implications for Diiron-Catalyzed Oxygen Activation. Journal of the American Chemical Society, 1999, 121, 2346-2352.	13.7	116

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73	Crystal Structures of Two Self-Hydroxylating Ribonucleotide Reductase Protein R2 Mutants:Â Structural Basis for the Oxygen-Insertion Step of Hydroxylation Reactions Catalyzed by Diiron Proteinsâ€,â€–. Biochemistry, 1998, 37, 10798-10807.	2.5	50
74	New Paramagnetic Species Formed at the Expense of the Transient Tyrosyl Radical in Mutant Protein R2 F208Y ofEscherichia coliRibonucleotide Reductase. Biochemical and Biophysical Research Communications, 1998, 246, 740-745.	2.1	13
75	The Manganese-containing Ribonucleotide Reductase ofCorynebacterium ammoniagenes Is a Class Ib Enzyme. Journal of Biological Chemistry, 1998, 273, 4329-4337.	3.4	54
76	Localization and Characterization of Two Nucleotide-binding Sites on the Anaerobic Ribonucleotide Reductase from Bacteriophage T4. Journal of Biological Chemistry, 1998, 273, 24853-24860.	3.4	13
77	Preserved Catalytic Activity in an Engineered Ribonucleotide Reductase R2 Protein with a Nonphysiological Radical Transfer Pathway. Journal of Biological Chemistry, 1998, 273, 21003-21008.	3.4	67
78	Cysteinyl and Substrate Radical Formation in Active Site Mutant E441Q of Escherichia coli Class I Ribonucleotide Reductase. Journal of Biological Chemistry, 1998, 273, 31016-31020.	3.4	42
79	A New Mechanism-based Radical Intermediate in a Mutant R1 Protein Affecting the Catalytically Essential Glu441 inEscherichia coli Ribonucleotide Reductase. Journal of Biological Chemistry, 1997, 272, 31533-31541.	3.4	67
80	Metal ion interaction with cosubstrate in self-splicing of group I introns. Nucleic Acids Research, 1997, 25, 648-653.	14.5	63
81	Kinetics of Transient Radicals in Escherichia coli Ribonucleotide Reductase. Journal of Biological Chemistry, 1997, 272, 10414-10421.	3.4	29
82	Binding of allosteric effectors to ribonucleotide reductase protein R1: reduction of active-site cysteines promotes substrate binding. Structure, 1997, 5, 1077-1092.	3.3	247
83	Electron Magnetic Resonance of the Tyrosyl Radical in Ribonucleotide Reductase fromEscherichia coli. Journal of the American Chemical Society, 1996, 118, 4672-4679.	13.7	108
84	Electronic Structure of Neutral Tryptophan Radicals in Ribonucleotide Reductase Studied by EPR and ENDOR Spectroscopy. Journal of the American Chemical Society, 1996, 118, 8111-8120.	13.7	101
85	A Synthetic Model for Triple-Helical Domains in Self-Splicing Group I Introns Studied by Ultraviolet and Circular Dichroism Spectroscopyâ€. Biochemistry, 1996, 35, 4678-4688.	2.5	23
86	Iron ligand mutants in protein R2 of Escherichia coli ribonucleotide reductase. Journal of Biological Inorganic Chemistry, 1996, 1, 247-256.	2.6	27
87	The Cys292â†’Ala Substitution in Protein R1 of Class I Ribonucleotide Reductase from Escherichia Coli has a Global Effect on Nucleotide Binding at the Specificity-Determining Allosteric Site. FEBS Journal, 1996, 241, 363-367.	0.2	7
88	Structural and Functional Characterization of Two Mutated R2 Proteins of Escherichia coli Ribonucleotide Reductase. FEBS Journal, 1996, 237, 58-63.	0.2	8
89	Bacteriophage T4 Anaerobic Ribonucleotide Reductase Contains a Stable Glycyl Radical at Position 580. Journal of Biological Chemistry, 1996, 271, 20770-20775.	3.4	51
90	Two Conserved Tyrosine Residues in Protein R1 Participate in an Intermolecular Electron Transfer in Ribonucleotide Reductase. Journal of Biological Chemistry, 1996, 271, 20655-20659.	3.4	120

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91	The Free Radical of the Anaerobic Ribonucleotide Reductase from Escherichia coli Is at Glycine 681. Journal of Biological Chemistry, 1996, 271, 6827-6831.	3.4	133
92	Enzymic and Chemical Reduction of the Iron Center of the Escherichia coli Ribonucleotide Reductase Protein R2. The Role of the C-Terminus. FEBS Journal, 1995, 233, 357-363.	0.2	20
93	Residues Important for Radical Stability in Ribonucleotide Reductase from Escherichia coli. Journal of Biological Chemistry, 1995, 270, 6570-6576.	3.4	62
94	Generation of the Glycyl Radical of the Anaerobic Escherichia coli Ribonucleotide Reductase Requires a Specific Activating Enzyme. Journal of Biological Chemistry, 1995, 270, 2443-2446.	3.4	80
95	Transient Free Radicals in Iron/Oxygen Reconstitution of Mutant Protein R2 Y122F.. Journal of Biological Chemistry, 1995, 270, 12361-12372.	3.4	43
96	The ribonucleotide reductase jigsaw puzzle: a large piece falls into place. Structure, 1994, 2, 793-796.	3.3	79
97	Translation across the 5'-splice site interferes with autocatalytic splicing. Molecular Microbiology, 1993, 7, 975-982.	2.5	17
98	2â€²-Amino-2â€²-deoxyguanosine is a cofactor for self-splicing in group I catalytic RNA. Biochemical and Biophysical Research Communications, 1992, 183, 842-847.	2.1	5
99	Computer Graphics Modelling and Molecular Dynamics Simulation of the Core of the Self Splicing Intervening Sequence of the T4 <i>nrDB</i> mRNA in the Presence of the Guanosine Cofactor. Nucleosides & Nucleotides, 1991, 10, 207-213.	0.5	0
100	Three-dimensional structure of the free radical protein of ribonucleotide reductase. Nature, 1990, 345, 593-598.	27.8	863
101	An ultrafiltration assay for nucleotide binding to ribonucleotide reductase. Analytical Biochemistry, 1990, 189, 138-141.	2.4	56
102	Activation of the iron-containing B2 protein of ribonucleotide reductase by hydrogen peroxide. Biochemical and Biophysical Research Communications, 1990, 167, 813-818.	2.1	73
103	New crystal forms of the small subunit of ribonucleotide reductase from Escherichia coli. FEBS Letters, 1989, 258, 251-254.	2.8	29
104	Lactobacillus reuteri and the Enteric Microbiota. , 1989, , 283-292.		23
105	Nucleotide sequence of the gene coding for the large subunit of ribonucleotide reductase ofEscherichia coli. Correction. Nucleic Acids Research, 1988, 16, 4174-4174.	14.5	28
106	Structure-function studies of the large subunit of ribonucleotide reductase from <i>Escherichia coli</i>. Biochemical Society Transactions, 1988, 16, 91-94.	3.4	18
107	Ribonucleotide reductase of Escherichia coli. Cross-linking agents as probes of quaternary and quinary structure. FEBS Journal, 1987, 166, 279-285.	0.2	14
108	Protein B1 of ribonucleotide reductase. Direct analytical data and comparisons with data indirectly deduced from the nucleotide sequence of the Escherichia coli nrdA gene. FEBS Journal, 1985, 150, 423-427.	0.2	9

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109	The Tyrosyl Free Radical in Ribonucleotide Reductase. Environmental Health Perspectives, 1985, 64, 139.	6.0	29
110	Identification of the stable free radical tyrosine residue in ribonucleotide reductase. FEBS Letters, 1985, 183, 99-102.	2.8	50
111	Ribonucleotide reductase: A structural study of the dimeric iron site. Biochemical and Biophysical Research Communications, 1980, 94, 793-799.	2.1	15
112	[30] Ribonucleoside diphosphate reductase (Escherichia coli). Methods in Enzymology, 1978, 51, 227-237.	1.0	88
113	The Free Radical in Ribonucleotide Reductase from <i>E. coli</i>. Novartis Foundation Symposium, 1978, , 187-196.	1.1	0
114	The Free Radical in Ribonucleotide Reductase from Escherichia coli. Biochemical Society Transactions, 1977, 5, 747-748.	3.4	0
115	Thioredoxin induced by bacteriophage T4: Crystallization and preliminary crystallographic data. Journal of Molecular Biology, 1976, 100, 415-419.	4.2	10
116	Purification of thioredoxin from Escherichia coli and bacteriophage T4 by immunoadsorbent affinity chromatography. Biochimica Et Biophysica Acta - Biomembranes, 1973, 315, 176-180.	2.6	22
117	Studies on the Structure of T4 Thioredoxin. Journal of Biological Chemistry, 1972, 247, 8063-8068.	3.4	47
118	Studies on the Structure of T4 Thioredoxin. Journal of Biological Chemistry, 1972, 247, 8058-8062.	3.4	11
119	A Thioredoxin Induced by Bacteriophage T4. Journal of Biological Chemistry, 1970, 245, 6030-6035.	3.4	64