Gregory A Grant

List of Publications by Year
in descending order

54 papers	1,480 citations	394286 19 h-index	330025 37 g-index
57 all docs	57 docs citations	57 times ranked	1280 citing authors

#	Article	IF	Citations
1	The allosteric ligand site in the Vmax-type cooperative enzyme phosphoglycerate dehydrogenase. Nature Structural Biology, 1995, 2, 69-76.	9.7	231
2	The ACT Domain: A Small Molecule Binding Domain and Its Role as a Common Regulatory Element. Journal of Biological Chemistry, 2006, 281, 33825-33829.	1.6	186
3	A model for the regulation of Dâ€3â€phosphoglycerate dehydrogenase, a <i>V_{max}â€</i>type allosteric enzyme. Protein Science, 1996, 5, 34-41.	3.1	68
4	Crystal Structure of Mycobacterium tuberculosis D-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2005, 280, 14892-14899.	1.6	62
5	VmaxRegulation through Domain and Subunit Changes. The Active Form of Phosphoglycerate Dehydrogenaseâ€,â€¡. Biochemistry, 2005, 44, 5763-5773.	1.2	56
6	Contrasting catalytic and allosteric mechanisms for phosphoglycerate dehydrogenases. Archives of Biochemistry and Biophysics, 2012, 519, 175-185.	1.4	55
7	The Mechanism of Velocity Modulated Allosteric Regulation in âˆ'3-Phosphoglycerate Dehydrogenase SITE-DIRECTED MUTAGENESIS OF EFFECTOR BINDING SITE RESIDUES. Journal of Biological Chemistry, 1996, 271, 23235-23238.	1.6	54
8	D-3-Phosphoglycerate Dehydrogenase from Mycobacterium tuberculosis Is a Link between the Escherichia coli and Mammalian Enzymes. Journal of Biological Chemistry, 2005, 280, 14884-14891.	1.6	51
9	Glycosylation of Human Glomerular Basement Membrane Collagen: Increased Content of Hexose in Ketoamine Linkage and Unaltered Hydroxylysine-O-Glycosides in Patients with Diabetesd. Connective Tissue Research, 1982, 10, 287-296.	1.1	45
10	D-3-Phosphoglycerate Dehydrogenase. Frontiers in Molecular Biosciences, 2018, 5, 110.	1.6	45
11	The Mechanism of Velocity Modulated Allosteric Regulation in D-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 1996, 271, 13013-13017.	1.6	36
12	Structural Analysis of Substrate and Effector Binding in <i>Mycobacterium tuberculosis</i> <scp>d</scp>-3-Phosphoglycerate Dehydrogenase. Biochemistry, 2008, 47, 8271-8282.	1.2	33
13	A Novel Mechanism for Substrate Inhibition in Mycobacterium tuberculosis d-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2007, 282, 31517-31524.	1.6	29
14	The Contribution of Adjacent Subunits to the Active Sites ofd-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 1999, 274, 5357-5361.	1.6	24
15	Specific Interactions at the Regulatory Domain-Substrate Binding Domain Interface Influence the Cooperativity of Inhibition and Effector Binding in Escherichia coli d-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2001, 276, 1078-1083.	1.6	22
16	Amino Acid Residue Mutations Uncouple Cooperative Effects inEscherichia coli d-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2001, 276, 17844-17850.	1.6	21
17	Cofactor Binding to Escherichia coli d-3-Phosphoglycerate Dehydrogenase Induces Multiple Conformations Which Alter Effector Binding. Journal of Biological Chemistry, 2002, 277, 39548-39553.	1.6	21
18	Modification of Cysteine. Current Protocols in Protein Science, 1996, 3, Unit15.1.	2.8	20

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19	Role of an Interdomain Gly-Gly Sequence at the Regulatoryâˆ'Substrate Domain Interface in the Regulation ofEscherichia coli.d-3-Phosphoglycerate Dehydrogenaseâ€. Biochemistry, 2000, 39, 7316-7319.	1.2	20
20	Identification of Amino Acid Residues Contributing to the Mechanism of Cooperativity in Escherichia coli d-3-Phosphoglycerate Dehydrogenase. Biochemistry, 2005, 44, 16844-16852.	1.2	20
21	Structure of <scp>l</scp>-Serine Dehydratase from <i>Legionella pneumophila</i>: Novel Use of the C-Terminal Cysteine as an Intrinsic Competitive Inhibitor. Biochemistry, 2014, 53, 7615-7624.	1.2	20
22	Critical Interactions at the Dimer Interface of Îº-Bungarotoxin, a Neuronal Nicotinic Acetylcholine Receptor Antagonistâ€. Biochemistry, 1997, 36, 3353-3358.	1.2	19
23	The Effect of Hinge Mutations on Effector Binding and Domain Rotation in Escherichia coli D-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2007, 282, 18418-18426.	1.6	19
24	Regulation of <i>Mycobacterium tuberculosis</i> <scp>d</scp>-3-Phosphoglycerate Dehydrogenase by Phosphate-Modulated Quaternary Structure Dynamics and a Potential Role for Polyphosphate in Enzyme Regulation. Biochemistry, 2014, 53, 4239-4249.	1.2	19
25	The many faces of partial inhibition: Revealing imposters with graphical analysis. Archives of Biochemistry and Biophysics, 2018, 653, 10-23.	1.4	19
26	Multiconformational States in Phosphoglycerate Dehydrogenaseâ€,â€¡. Biochemistry, 2004, 43, 3450-3458.	1.2	18
27	Quantitative Relationships of Site to Site Interaction in Escherichia coli d-3-Phosphoglycerate Dehydrogenase Revealed by Asymmetric Hybrid Tetramers. Journal of Biological Chemistry, 2004, 279, 13452-13460.	1.6	16
28	The relationship between effector binding and inhibition of activity in Dâ€3â€phosphoglycerate dehydrogenase. Protein Science, 1999, 8, 2501-2505.	3.1	16
29	A Stopped Flow Transient Kinetic Analysis of Substrate Binding and Catalysis in Escherichia coli d-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2008, 283, 29706-29714.	1.6	16
30	Removal of the Tryptophan 139 Side Chain in Escherichia coli D-3-Phosphoglycerate Dehydrogenase Produces a Dimeric Enzyme without Cooperative Effects. Archives of Biochemistry and Biophysics, 2000, 375, 171-174.	1.4	15
31	Kinetic, mutagenic, and structural homology analysis of l-serine dehydratase from Legionella pneumophila. Archives of Biochemistry and Biophysics, 2011, 515, 28-36.	1.4	15
32	Allosteric Activation and Contrasting Properties ofl-Serine Dehydratase Types 1 and 2. Biochemistry, 2012, 51, 5320-5328.	1.2	15
33	Elucidation of a Self-Sustaining Cycle in <i>Escherichia coli</i> <scp>l</scp>-Serine Biosynthesis That Results in the Conservation of the Coenzyme, NAD⁺. Biochemistry, 2018, 57, 1798-1806.	1.2	15
34	Probing the Regulatory Domain Interface ofd-3-Phosphoglycerate Dehydrogenase with Engineered Tryptophan Residues. Journal of Biological Chemistry, 1998, 273, 22389-22394.	1.6	14
35	Role of the Anion-Binding Site in Catalysis and Regulation of <i>Mycobacterium tuberculosis</i> <scp>d</scp>-3-Phosphoglycerate Dehydrogenase. Biochemistry, 2009, 48, 4808-4815.	1.2	14
36	Hybrid Tetramers Reveal Elements of Cooperativity in Escherichia colid-3-Phosphoglycerate Dehydrogenase. Journal of Biological Chemistry, 2003, 278, 18170-18176.	1.6	13

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37	Transient Kinetic Analysis of the Interaction of <scp>l</scp>-Serine with <i>Escherichia coli</i> <scp>d</scp>-3-Phosphoglycerate Dehydrogenase Reveals the Mechanism of V-Type Regulation and the Order of Effector Binding. Biochemistry, 2009, 48, 12242-12251.	1.2	13
38	Synthetic Peptides for Production of Antibodies that Recognize Intact Proteins. Current Protocols in Molecular Biology, 2002, 59, Unit 11.16.	2.9	11
39	Regulatory Mechanism ofMycobacterium tuberculosisPhosphoserine Phosphatase SerB2. Biochemistry, 2017, 56, 6481-6490.	1.2	11
40	Kinetic Evidence of a Noncatalytic Substrate Binding Site That Regulates Activity in <i>Legionella pneumophila</i><scp>l</scp>-Serine Dehydratase. Biochemistry, 2012, 51, 6961-6967.	1.2	10
41	Identification and characterization of two new types of bacterial l-serine dehydratases and assessment of the function of the ACT domain. Archives of Biochemistry and Biophysics, 2013, 540, 62-69.	1.4	10
42	Hydrogenâ€“Deuterium Exchange Mass Spectrometry Reveals Unique Conformational and Chemical Transformations Occurring upon [4Fe-4S] Cluster Binding in the Type 2 <scp>l</scp>-Serine Dehydratase from <i>Legionella pneumophila</i>. Biochemistry, 2015, 54, 5322-5328.	1.2	9
43	Modification of Cysteine. Current Protocols in Protein Science, 2017, 87, 15.1.1-15.1.23.	2.8	9
44	Methods for Analyzing Cooperativity in Phosphoglycerate Dehydrogenase. Methods in Enzymology, 2004, 380, 106-131.	0.4	8
45	Comparison of Type 1 D-3-phosphoglycerate dehydrogenases reveals unique regulation in pathogenic Mycobacteria. Archives of Biochemistry and Biophysics, 2015, 570, 32-39.	1.4	7
46	Identification of PTH-Amino Acids by HPLC. , 2003, 211, 247-268.		5
47	Synthetic Peptides for Production of Antibodies that Recognize Intact Proteins. , 2003, Chapter 9, Unit 9.2.		4
48	Transient Kinetic Analysis of <scp>l</scp>-Serine Interaction with <i>Escherichia coli</i><scp>d</scp>-3-Phosphoglycerate Dehydrogenase Containing Amino Acid Mutations in the Hinge Regions. Biochemistry, 2011, 50, 2900-2906.	1.2	4
49	Mutagenic and chemical analyses provide new insight into enzyme activation and mechanism of the type 2 iron-sulfur l-serine dehydratase from Legionella pneumophila. Archives of Biochemistry and Biophysics, 2016, 596, 108-117.	1.4	4
50	Synthetic Peptides for Production of Antibodies that Recognize Intact Proteins. Current Protocols in Protein Science, 2002, 28, Unit 18.3.	2.8	3
51	Analytical Ultracentrifugation Analysis of the Self-Association of Îº-Bungarotoxin. Techniques in Protein Chemistry, 1994, 5, 269-274.	0.3	3
52	Guest Editorâ€™s Introduction. Archives of Biochemistry and Biophysics, 2012, 519, 67-68.	1.4	2
53	Structure, Function, and Biophysical Aspects of ĸ-Neurotoxins. Toxin Reviews, 1998, 17, 239-260.	1.5	1
54	Determinants of substrate specificity in D-3-phosphoglycerate dehydrogenase. Conversion of the M. tuberculosis enzyme from one that does not use Î±-ketoglutarate as a substrate to one that does. Archives of Biochemistry and Biophysics, 2019, 671, 218-224.	1.4	1