Arnon Lavie

List of Publications by Year
in descending order

87 papers	3,038 citations	126907 33 h-index	182427 51 g-index
88 all docs	88 docs citations	88 times ranked	3508 citing authors

#	Article	IF	Citations
1	Novel Insights on the Use of L-Asparaginase as an Efficient and Safe Anti-Cancer Therapy. Cancers, 2022, 14, 902.	3.7	39
2	The spleen as a sanctuary site for residual leukemic cells following ABT-199 monotherapy in ETP-ALL. Blood Advances, 2021, 5, 1963-1976.	5.2	9
3	pH-Dependent Mechanisms of Influenza Infection Mediated by Hemagglutinin. Frontiers in Molecular Biosciences, 2021, 8, 777095.	3.5	19
4	Identification of a pH sensor in Influenza hemagglutinin using X-ray crystallography. Journal of Structural Biology, 2020, 209, 107412.	2.8	6
5	Metabolic Modifier Screen Reveals Secondary Targets of Protein Kinase Inhibitors within Nucleotide Metabolism. Cell Chemical Biology, 2020, 27, 197-205.e6.	5.2	16
6	Structure of avian influenza hemagglutinin in complex with a small molecule entry inhibitor. Life Science Alliance, 2020, 3, e202000724.	2.8	13
7	Identifying small molecule probes of ENTPD5 through high throughput screening. PLoS ONE, 2019, 14, e0210305.	2.5	6
8	NMR-based metabolite studies with 15N amino acids. Scientific Reports, 2019, 9, 12798.	3.3	6
9	Molecular basis for the interaction between human choline kinase alpha and the SH3 domain of the c-Src tyrosine kinase. Scientific Reports, 2019, 9, 17121.	3.3	7
10	Identification of a Unique Inhibitor-Binding Site on Choline Kinase Î±. Biochemistry, 2018, 57, 1316-1325.	2.5	21
11	A Novel <scp>l</scp>-Asparaginase with low <scp>l</scp>-Glutaminase Coactivity Is Highly Efficacious against Both T- and B-cell Acute Lymphoblastic Leukemias In Vivo. Cancer Research, 2018, 78, 1549-1560.	0.9	67
12	Generating a recombinant phosphothreonine-binding domain for a phosphopeptide of the human transcription factor, c-Myc. New Biotechnology, 2018, 45, 36-44.	4.4	2
13	Identification of two distinct peptide-binding pockets in the SH3 domain of human mixed-lineage kinase 3. Journal of Biological Chemistry, 2018, 293, 13553-13565.	3.4	9
14	The differential ability of asparagine and glutamine in promoting the closed/active enzyme conformation rationalizes the Wolinella succinogenes L-asparaginase substrate specificity. Scientific Reports, 2017, 7, 41643.	3.3	23
15	Discovery of human-like L-asparaginases with potential clinical use by directed evolution. Scientific Reports, 2017, 7, 10224.	3.3	39
16	Probing the metastable state of influenza hemagglutinin. Journal of Biological Chemistry, 2017, 292, 21590-21597.	3.4	3
17	Targeted Delivery of Deoxycytidine Kinase to Her2-Positive Cells Enhances the Efficacy of the Nucleoside Analog Fludarabine. PLoS ONE, 2016, 11, e0157114.	2.5	4
18	Design and Characterization of Erwinia Chrysanthemi l-Asparaginase Variants with Diminished l-Glutaminase Activity. Journal of Biological Chemistry, 2016, 291, 17664-17676.	3.4	60

#	Article	IF	Citations
19	[¹⁸ F]CFA as a clinically translatable probe for PET imaging of deoxycytidine kinase activity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4027-4032.	7.1	68
20	Structural Insight into Substrate Selectivity of Erwinia chrysanthemi <scp>l</scp>-Asparaginase. Biochemistry, 2016, 55, 1246-1253.	2.5	38
21	Experimental Data in Support of a Direct Displacement Mechanism for Type I/II l-Asparaginases. Journal of Biological Chemistry, 2016, 291, 5088-5100.	3.4	26
22	Structural Basis of a Key Factor Regulating the Affinity between the Zonula Occludens First PDZ Domain and Claudins. Journal of Biological Chemistry, 2015, 290, 16595-16606.	3.4	46
23	Discovery of Selective Inhibitors of the Clostridium difficile Dehydroquinate Dehydratase. PLoS ONE, 2014, 9, e89356.	2.5	12
24	Structural characterization of new deoxycytidine kinase inhibitors rationalizes the affinity-determining moieties of the molecules. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 68-78.	2.5	7
25	Identification and Structural Analysis of an l-Asparaginase Enzyme from Guinea Pig with Putative Tumor Cell Killing Properties. Journal of Biological Chemistry, 2014, 289, 33175-33186.	3.4	48
26	Co-targeting of convergent nucleotide biosynthetic pathways for leukemia eradication. Journal of Experimental Medicine, 2014, 211, 473-486.	8.5	34
27	Structure-Guided Development of Deoxycytidine Kinase Inhibitors with Nanomolar Affinity and Improved Metabolic Stability. Journal of Medicinal Chemistry, 2014, 57, 9480-9494.	6.4	13
28	Structural and Kinetic Characterization of Guinea Pig <scp>l</scp>-Asparaginase Type III. Biochemistry, 2014, 53, 2318-2328.	2.5	29
29	Crystal Structures of Type I Dehydroquinate Dehydratase in Complex with Quinate and Shikimate Suggest a Novel Mechanism of Schiff Base Formation. Biochemistry, 2014, 53, 872-880.	2.5	10
30	Elucidation of the Specific Function of the Conserved Threonine Triad Responsible for Human l-Asparaginase Autocleavage and Substrate Hydrolysis. Journal of Molecular Biology, 2014, 426, 2471-2485.	4.2	33
31	Crystal structure of a type II dehydroquinate dehydratase-like protein from Bifidobacterium longum. Journal of Structural and Functional Genomics, 2013, 14, 25-30.	1.2	0
32	Development of New Deoxycytidine Kinase Inhibitors and Noninvasive in Vivo Evaluation Using Positron Emission Tomography. Journal of Medicinal Chemistry, 2013, 56, 6696-6708.	6.4	25
33	Free Glycine Accelerates the Autoproteolytic Activation of Human Asparaginase. Chemistry and Biology, 2013, 20, 533-540.	6.0	28
34	Reassessing the type I dehydroquinate dehydratase catalytic triad: Kinetic and structural studies of Glu86 mutants. Protein Science, 2013, 22, 418-424.	7.6	5
35	The Engineered Thymidylate Kinase (TMPK)/AZT Enzyme-Prodrug Axis Offers Efficient Bystander Cell Killing for Suicide Gene Therapy of Cancer. PLoS ONE, 2013, 8, e78711.	2.5	28
36	Cell Fate Control Gene Therapy Based on Engineered Variants of Human Deoxycytidine Kinase. Molecular Therapy, 2012, 20, 1002-1013.	8.2	20

#	Article	IF	Citations
37	Structure-guided Engineering of Human Thymidine Kinase 2 as a Positron Emission Tomography Reporter Gene for Enhanced Phosphorylation of Non-natural Thymidine Analog Reporter Probe*. Journal of Biological Chemistry, 2012, 287, 446-454.	3.4	45
38	Structures of Apo and Product-Bound Human <scp>l</scp>-Asparaginase: Insights into the Mechanism of Autoproteolysis and Substrate Hydrolysis. Biochemistry, 2012, 51, 6816-6826.	2.5	50
39	Balance of human choline kinase isoforms is critical for cell cycle regulation. FEBS Journal, 2012, 279, 1915-1928.	4.7	38
40	A Conserved Surface Loop in Type I Dehydroquinate Dehydratases Positions an Active Site Arginine and Functions in Substrate Binding. Biochemistry, 2011, 50, 2357-2363.	2.5	12
41	Post-Translational Phosphorylation of Serine 74 of Human Deoxycytidine Kinase Favors the Enzyme Adopting the Open Conformation Making It Competent for Nucleoside Binding and Release. Biochemistry, 2011, 50, 2870-2880.	2.5	34
42	The Src Homology 3 Domain Is Required for Junctional Adhesion Molecule Binding to the Third PDZ Domain of the Scaffolding Protein ZO-1. Journal of Biological Chemistry, 2011, 286, 43352-43360.	3.4	64
43	Insights into the Mechanism of Type I Dehydroquinate Dehydratases from Structures of Reaction Intermediates. Journal of Biological Chemistry, 2011, 286, 3531-3539.	3.4	27
44	Transgenic cardiac-targeted overexpression of human thymidylate kinase. Laboratory Investigation, 2010, 90, 383-390.	3.7	3
45	Structure and Mutagenesis of Neural Cell Adhesion Molecule Domains. Journal of Biological Chemistry, 2010, 285, 27360-27371.	3.4	22
46	Insights into Regulated Ligand Binding Sites from the Structure of ZO-1 Src Homology 3-Guanylate Kinase Module. Journal of Biological Chemistry, 2010, 285, 13907-13917.	3.4	37
47	The Sugar Ring of the Nucleoside Is Required for Productive Substrate Positioning in the Active Site of Human Deoxycytidine Kinase (dCK): Implications for the Development of dCK-Activated Acyclic Guanine Analogues. Journal of Medicinal Chemistry, 2010, 53, 5792-5800.	6.4	8
48	Structural and Kinetic Characterization of Human Deoxycytidine Kinase Variants Able To Phosphorylate 5-Substituted Deoxycytidine and Thymidine Analogues,. Biochemistry, 2010, 49, 6784-6790.	2.5	35
49	Extending Thymidine Kinase Activity to the Catalytic Repertoire of Human Deoxycytidine Kinase. Biochemistry, 2009, 48, 1256-1263.	2.5	34
50	Structural requirements for calmodulin binding to membraneâ€associated guanylate kinase homologs. Protein Science, 2008, 17, 1946-1954.	7.6	15
51	The TRAPP Complex: Insights into its Architecture and Function. Traffic, 2008, 9, 2032-2042.	2.7	106
52	Mimicking phosphorylation of Serâ€74 on human deoxycytidine kinase selectively increases catalytic activity for dC and dC analogues. FEBS Letters, 2008, 582, 720-724.	2.8	27
53	Structural Basis for Substrate Promiscuity of dCK. Journal of Molecular Biology, 2008, 378, 607-621.	4.2	40
54	Elucidation of Different Binding Modes of Purine Nucleosides to Human Deoxycytidine Kinase. Journal of Medicinal Chemistry, 2008, 51, 4219-4225.	6.4	16

#	Article	IF	Citations
55	Therapeutic Target Metabolism Observed Using Hyperpolarized ¹⁵N Choline. Journal of the American Chemical Society, 2008, 130, 4598-4599.	13.7	116
56	Restoration of the antiviral activity of 3â€²-azido-3â€²-deoxythymidine (AZT) against AZT-resistant human immunodeficiency virus by delivery of engineered thymidylate kinase to T cells. Journal of General Virology, 2008, 89, 1672-1679.	2.9	5
57	Structural Mechanism for Substrate Inhibition of the Adenosine 5â€²-Phosphosulfate Kinase Domain of Human 3â€²-Phosphoadenosine 5â€²-Phosphosulfate Synthetase 1 and Its Ramifications for Enzyme Regulation. Journal of Biological Chemistry, 2007, 282, 22112-22121.	3.4	20
58	Domain Swapping within PDZ2 Is Responsible for Dimerization of ZO Proteins. Journal of Biological Chemistry, 2007, 282, 37710-37716.	3.4	48
59	Engineered Human tmpk/AZT As a Novel Enzyme/Prodrug Axis for Suicide Gene Therapy. Molecular Therapy, 2007, 15, 962-970.	8.2	98
60	Elucidation of the Active Conformation of the APS-Kinase Domain of Human PAPS Synthetase 1. Journal of Molecular Biology, 2007, 367, 488-500.	4.2	33
61	Binding of ATP to TK1-like Enzymes Is Associated with a Conformational Change in the Quaternary Structure. Journal of Molecular Biology, 2007, 369, 129-141.	4.2	30
62	Nonenantioselectivity Property of Human Deoxycytidine Kinase Explained by Structures of the Enzyme in Complex with l- and d-Nucleosides. Journal of Medicinal Chemistry, 2007, 50, 3004-3014.	6.4	42
63	Quaternary Structure Change as a Mechanism for the Regulation of Thymidine Kinase 1-Like Enzymes. Structure, 2007, 15, 1555-1566.	3.3	25
64	Structural basis for activation of the therapeutic L-nucleoside analogs 3TC and troxacitabine by human deoxycytidine kinase. Nucleic Acids Research, 2006, 35, 186-192.	14.5	45
65	Elucidation of Human Choline Kinase Crystal Structures in Complex with the Products ADP or Phosphocholine. Journal of Molecular Biology, 2006, 364, 136-151.	4.2	72
66	A Novel Î±-Helix in the First Fibronectin Type III Repeat of the Neural Cell Adhesion Molecule Is Critical for N-Glycan Polysialylation. Journal of Biological Chemistry, 2006, 281, 36052-36059.	3.4	52
67	Development of Improved Lentiviral â€˜Suicideâ€™ Gene Therapy for the Management of GvHD and GvL/GvT Responses in Allogeneic BMT.. Blood, 2006, 108, 3256-3256.	1.4	0
68	Specific Amino Acids in the First Fibronectin Type III Repeat of the Neural Cell Adhesion Molecule Play a Role in Its Recognition and Polysialylation by the Polysialyltransferase ST8Sia IV/PST. Journal of Biological Chemistry, 2005, 280, 32340-32348.	3.4	33
69	Structure of the Conserved Cytoplasmic C-terminal Domain of Occludin: Identification of the ZO-1 Binding Surface. Journal of Molecular Biology, 2005, 352, 151-164.	4.2	105
70	Improved Suicide Gene Therapy: Lentiviral Gene Transfer of Equine Herpes Virus Type 4 Thymidine Kinase into Target Cells.. Blood, 2005, 106, 5251-5251.	1.4	0
71	A Novel Suicide Gene Therapy Approach for Reduction of GvHD Using Lentiviral Delivery of a Modified Human Thymidylate Monophosphate Kinase.. Blood, 2005, 106, 5252-5252.	1.4	0
72	Structural Requirements for Efficient Phosphorylation of Nucleotide Analogs by Human Thymidylate Kinase. Mini-Reviews in Medicinal Chemistry, 2004, 4, 351-9.	2.4	31

#	Article	IF	Citations
73	Substrate-induced Conformational Changes in Human UMP/CMP Kinase. Journal of Biological Chemistry, 2004, 279, 33882-33889.	3.4	42
74	Structural basis for L27 domain-mediated assembly of signaling and cell polarity complexes. EMBO Journal, 2004, 23, 2723-2733.	7.8	38
75	Structural Basis for the Dual Thymidine and Thymidylate Kinase Activity of Herpes Thymidine Kinases. Structure, 2003, 11, 1265-1277.	3.3	26
76	Structure of human dCK suggests strategies to improve anticancer and antiviral therapy. Nature Structural and Molecular Biology, 2003, 10, 513-519.	8.2	153
77	Structures of Human Thymidylate Kinase in Complex with Prodrugs:Â Implications for the Structure-Based Design of Novel Compoundsâ€. Biochemistry, 2003, 42, 2568-2577.	2.5	40
78	Structural Basis for Nucleotide-dependent Regulation of Membrane-associated Guanylate Kinase-like Domains. Journal of Biological Chemistry, 2002, 277, 4159-4165.	3.4	30
79	Formation of Complexes between Ca2+Â·Calmodulin and the Synapse-associated Protein SAP97 Requires the SH3 Domain-Guanylate Kinase Domain-connecting HOOK Region. Journal of Biological Chemistry, 2002, 277, 40832-40838.	3.4	33
80	Structural Characterization of the Closed Conformation of Mouse Guanylate Kinase. Journal of Biological Chemistry, 2002, 277, 30236-30243.	3.4	61
81	Insights into the phosphoryltransfer mechanism of human thymidylate kinase gained from crystal structures of enzyme complexes along the reaction coordinate. Structure, 2000, 8, 629-642.	3.3	96
82	Potentiating AZT activation: structures of wild-type and mutant human thymidylate kinase suggest reasons for the mutantsâ€™ improved kinetics with the HIV prodrug metabolite AZTMP 1 1Edited by J. Karn. Journal of Molecular Biology, 2000, 304, 43-53.	4.2	44
83	Binding of Nucleotides to Guanylate Kinase, p21 , and Nucleoside-diphosphate Kinase Studied by Nano-electrospray Mass Spectrometry. Journal of Biological Chemistry, 1999, 274, 35337-35342.	3.4	16
84	Modifying Human Thymidylate Kinase to Potentiate Azidothymidine Activation. Journal of Biological Chemistry, 1999, 274, 35289-35292.	3.4	56
85	Structure of thymidylate kinase reveals the cause behind the limiting step in AZT activation. Nature Structural Biology, 1997, 4, 601-604.	9.7	86
86	The bottleneck in AZT activation. Nature Medicine, 1997, 3, 922-924.	30.7	130
87	Metabolic Modifier Screen Reveals Secondary Targets of Protein Kinase Inhibitors within Nucleotide Metabolism. SSRN Electronic Journal, 0, , .	0.4	0