Liya Wang

List of Publications by Year
in descending order

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52 papers	1,981 citations	331538 21 h-index	254106 43 g-index
54 all docs	54 docs citations	54 times ranked	2578 citing authors

#	Article	IF	Citations
1	mTORC1 Regulates Mitochondrial Integrated Stress Response and Mitochondrial Myopathy Progression. Cell Metabolism, 2017, 26, 419-428.e5.	7.2	291
2	Mitochondrial DNA Replication Defects Disturb Cellular dNTP Pools and Remodel One-Carbon Metabolism. Cell Metabolism, 2016, 23, 635-648.	7.2	222
3	Fibroblast Growth Factor 21 Drives Dynamics of Local and Systemic Stress Responses in Mitochondrial Myopathy with mtDNA Deletions. Cell Metabolism, 2019, 30, 1040-1054.e7.	7.2	166
4	Human thymidine kinase 2: molecular cloning and characterisation of the enzyme activity with antiviral and cytostatic nucleoside substrates. FEBS Letters, 1999, 443, 170-174.	1.3	138
5	Structures of thymidine kinase 1 of human and mycoplasmic origin. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17970-17975.	3.3	107
6	Thymidine kinase 2 mutations in autosomal recessive progressive external ophthalmoplegia with multiple mitochondrial DNA deletions. Human Molecular Genetics, 2012, 21, 66-75.	1.4	91
7	Mitochondrial purine and pyrimidine metabolism and beyond. Nucleosides, Nucleotides and Nucleic Acids, 2016, 35, 578-594.	0.4	71
8	Kinetic Properties of Mutant Human Thymidine Kinase 2 Suggest a Mechanism for Mitochondrial DNA Depletion Myopathy. Journal of Biological Chemistry, 2003, 278, 6963-6968.	1.6	69
9	Molecular insight into mitochondrial DNA depletion syndrome in two patients with novel mutations in the deoxyguanosine kinase and thymidine kinase 2 genes. Molecular Genetics and Metabolism, 2005, 84, 75-82.	0.5	69
10	MPV17 Loss Causes Deoxynucleotide Insufficiency and Slow DNA Replication in Mitochondria. PLoS Genetics, 2016, 12, e1005779.	1.5	67
11	Cloning and expression of human mitochondrial deoxyguanosine kinase cDNA. FEBS Letters, 1996, 390, 39-43.	1.3	61
12	Defects in mtDNA replication challenge nuclear genome stability through nucleotide depletion and provide a unifying mechanism for mouse progerias. Nature Metabolism, 2019, 1, 958-965.	5.1	57
13	Cloning and characterization of full-length mouse thymidine kinase 2: the N-terminal sequence directs import of the precursor protein into mitochondria. Biochemical Journal, 2000, 351, 469-476.	1.7	53
14	Novel deoxynucleoside-phosphorylating enzymes in mycoplasmas: evidence for efficient utilization of deoxynucleosides. Molecular Microbiology, 2001, 42, 1065-1073.	1.2	43
15	Multiplex cytokine analyses in dogs with pyometra suggest involvement of KC-like chemokine in canine bacterial sepsis. Veterinary Immunology and Immunopathology, 2016, 170, 41-46.	0.5	40
16	Molecular characterization of thymidine kinase fromUreaplasma urealyticum: nucleoside analogues as potent inhibitors ofmycoplasmagrowth. Molecular Microbiology, 2003, 50, 771-780.	1.2	36
17	Oxidative Stress Induced S-glutathionylation and Proteolytic Degradation of Mitochondrial Thymidine Kinase 2. Journal of Biological Chemistry, 2012, 287, 24304-24312.	1.6	35
18	Substrate Specificities, Expression and Primary Sequences of Deoxynucleoside Kinases; Implications for Chemotherapy. Nucleosides & Nucleotides, 1997, 16, 653-659.	0.5	30

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19	Targeted Transgenic Overexpression of Mitochondrial Thymidine Kinase (TK2) Alters Mitochondrial DNA (mtDNA) and Mitochondrial Polypeptide Abundance. American Journal of Pathology, 2007, 170, 865-874.	1.9	29
20	Inhibition of Mycoplasma pneumoniae growth by FDA-approved anticancer and antiviral nucleoside and nucleobase analogs. BMC Microbiology, 2013, 13, 184.	1.3	28
21	Molecular Mechanisms of Mitochondrial DNA Depletion Diseases Caused by Deficiencies in Enzymes in Purine and Pyrimidine Metabolism. Nucleosides, Nucleotides and Nucleic Acids, 2008, 27, 800-808.	0.4	26
22	Zidovudine Induces Downregulation of Mitochondrial Deoxynucleoside Kinases: Implications for Mitochondrial Toxicity of Antiviral Nucleoside Analogs. Antimicrobial Agents and Chemotherapy, 2014, 58, 6758-6766.	1.4	22
23	The contribution of mitochondrial thymidylate synthesis in preventing the nuclear genome stress. Nucleic Acids Research, 2014, 42, 4972-4984.	6.5	18
24	The Kinetic Effects on Thymidine Kinase 2 by Enzyme-Bound dTTP May Explain the Mitochondrial Side Effects of Antiviral Thymidine Analogs. Antimicrobial Agents and Chemotherapy, 2011, 55, 2552-2558.	1.4	17
25	Pan-Pathway Based Interaction Profiling of FDA-Approved Nucleoside and Nucleobase Analogs with Enzymes of the Human Nucleotide Metabolism. PLoS ONE, 2012, 7, e37724.	1.1	17
26	Thymidine Kinase 2 Enzyme Kinetics Elucidate the Mechanism of Thymidine-Induced Mitochondrial DNA Depletion. Biochemistry, 2014, 53, 6142-6150.	1.2	17
27	Down-regulation of mitochondrial thymidine kinase 2 and deoxyguanosine kinase by didanosine: Implication for mitochondrial toxicities of anti-HIV nucleoside analogs. Biochemical and Biophysical Research Communications, 2014, 450, 1021-1026.	1.0	17
28	The role of Ureaplasma nucleoside monophosphate kinases in the synthesis of nucleoside triphosphates. FEBS Journal, 2007, 274, 1983-1990.	2.2	15
29	Mechanisms of substrate selectivity for Bacillus anthracis thymidylate kinase. Protein Science, 2008, 17, 1486-1493.	3.1	15
30	Pathogenic Escherichia coli and lipopolysaccharide enhance the expression of IL-8, CXCL5, and CXCL10 in canine endometrial stromal cells. Theriogenology, 2015, 84, 34-42.	0.9	14
31	DTYMK is essential for genome integrity and neuronal survival. Acta Neuropathologica, 2022, 143, 245-262.	3.9	11
32	Kinetic Mechanism of Deoxyadenosine Kinase fromMycoplasmaDetermined by Surface Plasmon Resonance Technologyâ€. Biochemistry, 2006, 45, 513-522.	1.2	9
33	5-Bromovinyl 2â€²-Deoxyuridine Phosphorylation by Mitochondrial and Cytosolic Thymidine Kinase (TK2) Tj ETQq1 1 0.784314 rgBT /Ov Nucleotides and Nucleic Acids, 2008, 27, 858-862.	0.4	9
34	Structural and functional studies of the human phosphoribosyltransferase domain containing protein 1. FEBS Journal, 2010, 277, 4920-4930.	2.2	8
35	Upregulation of thymidine kinase activity compensates for loss of thymidylate synthase activity in Mycoplasma pneumoniae. Molecular Microbiology, 2010, 77, 1502-1511.	1.2	8
36	Mitochondrial Thymidine Kinase 2 but Not Deoxyguanosine Kinase Is Up-Regulated During the Stationary Growth Phase of Cultured Cells. Nucleosides, Nucleotides and Nucleic Acids, 2014, 33, 282-286.	0.4	7

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37	Quantitative solid-phase assay to measure deoxynucleoside triphosphate pools. Biology Methods and Protocols, 2018, 3, bpy011.	1.0	7
38	Mycoplasma PneumoniaeThymidine Phosphorylase. Nucleosides, Nucleotides and Nucleic Acids, 2014, 33, 296-304.	0.4	6
39	Identification of a novel thymidylate kinase activity. Nucleosides, Nucleotides and Nucleic Acids, 2020, 39, 1359-1368.	0.4	6
40	Basic biochemical characterization of cytosolic enzymes in thymidine nucleotide synthesis in adult rat tissues: implications for tissue specific mitochondrial DNA depletion and deoxynucleoside-based therapy for TK2-deficiency. BMC Molecular and Cell Biology, 2020, 21, 33.	1.0	6
41	Comparison of cellular location and expression of Plakophilinâ€2 in epidermal cells from nonlesional atopic skin and healthy skin in German shepherd dogs. Veterinary Dermatology, 2017, 28, 377.	0.4	5
42	Feline thymidine kinase 1: molecular characterization and evaluation of its serum form as a diagnostic biomarker. BMC Veterinary Research, 2021, 17, 316.	0.7	4
43	Biochemical Characterizations of Human TMPK Mutations Identified in Patients with Severe Microcephaly: Single Amino Acid Substitutions Impair Dimerization and Abolish Their Catalytic Activity. ACS Omega, 2021, 6, 33943-33952.	1.6	4
44	Reply to: Proofreading deficiency in mitochondrial DNA polymerase does not affect total dNTP pools in mouse embryos. Nature Metabolism, 2020, 2, 676-677.	5.1	2
45	The expression and activity of thymidine kinase 1 and deoxycytidine kinase are modulated by hydrogen peroxide and nucleoside analogs. Nucleosides, Nucleotides and Nucleic Acids, 2020, 39, 1347-1358.	0.4	2
46	Structural and functional analysis of human thymidylate kinase isoforms. Nucleosides, Nucleotides and Nucleic Acids, 2022, , 1-12.	0.4	2
47	Mutational analyses of human thymidine kinase 2 reveal key residues in ATP-Mg2+ binding and catalysis. Nucleosides, Nucleotides and Nucleic Acids, 2021, , 1-9.	0.4	1
48	Heavy metal tolerance of Mesorhizobium delmotii thymidylate kinase. Nucleosides, Nucleotides and Nucleic Acids, 2022, 41, 1305-1317.	0.4	1
49	Differential expression of enzymes in thymidylate biosynthesis in zebrafish at different developmental stages: implications for dtymk mutation-caused neurodegenerative disorders. BMC Neuroscience, 2022, 23, 19.	0.8	1
50	Molecular characterization of equine thymidine kinase 1 and preliminary evaluation of its suitability as a serum biomarker for equine lymphoma. BMC Molecular and Cell Biology, 2021, 22, 59.	1.0	1
51	Negative Cooperative Binding of Thymidine, Ordered Substrate Binding, and Product Release of Human Mitochondrial Thymidine Kinase 2 Explain Its Complex Kinetic Properties and Physiological Functions. ACS Omega, 2018, 3, 8971-8979.	1.6	0
52	Whole-Cell and Mitochondrial dNTP Quantification from Cells and Tissues. Methods in Molecular Biology, 2021, 2276, 143-151.	0.4	0