

Mauro Sola-Penna

List of Publications by Year in descending order

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94
papers

3,619
citations

109137

35
h-index

155451

55
g-index

97
all docs

97
docs citations

97
times ranked

4825
citing authors

#	ARTICLE	IF	CITATIONS
1	Stabilization against Thermal Inactivation Promoted by Sugars on Enzyme Structure and Function: Why Is Trehalose More Effective Than Other Sugars?. Archives of Biochemistry and Biophysics, 1998, 360, 10-14.	1.4	279
2	Lactate downregulates the glycolytic enzymes hexokinase and phosphofructokinase in diverse tissues from mice. FEBS Letters, 2011, 585, 92-98.	1.3	126
3	Lactate favours the dissociation of skeletal muscle 6-phosphofructo-1-kinase tetramers down-regulating the enzyme and muscle glycolysis. Biochemical Journal, 2007, 408, 123-130.	1.7	125
4	Microcapsules of alginate/chitosan containing magnetic nanoparticles for controlled release of insulin. Colloids and Surfaces B: Biointerfaces, 2010, 81, 206-211.	2.5	125
5	Regulation of mammalian muscle type 6-phosphofructo-1-kinase and its implication for the control of the metabolism. IUBMB Life, 2010, 62, 791-796.	1.5	120
6	Acetylsalicylic acid and salicylic acid decrease tumor cell viability and glucose metabolism modulating 6-phosphofructo-1-kinase structure and activity. Biochemical Pharmacology, 2009, 77, 46-53.	2.0	117
7	Resveratrol decreases breast cancer cell viability and glucose metabolism by inhibiting 6-phosphofructo-1-kinase. Biochimie, 2013, 95, 1336-1343.	1.3	97
8	Epithelial Mesenchymal Transition Induces Aberrant Glycosylation through Hexosamine Biosynthetic Pathway Activation. Journal of Biological Chemistry, 2016, 291, 12917-12929.	1.6	93
9	Differential expression of phosphofructokinase-1 isoforms correlates with the glycolytic efficiency of breast cancer cells. Molecular Genetics and Metabolism, 2010, 100, 372-378.	0.5	84
10	Clotrimazole Preferentially Inhibits Human Breast Cancer Cell Proliferation, Viability and Glycolysis. PLoS ONE, 2012, 7, e30462.	1.1	81
11	Herpes simplex type 1 activates glycolysis through engagement of the enzyme 6-phosphofructo-1-kinase (PFK-1). Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 1198-1206.	1.8	78
12	Trehalose and glycerol stabilize and renature yeast inorganic pyrophosphatase inactivated by very high temperatures. Archives of Biochemistry and Biophysics, 2005, 444, 52-60.	1.4	74
13	Metabolic regulation by lactate. IUBMB Life, 2008, 60, 605-608.	1.5	73
14	Biosynthesis of O-N-Acetylglucosamine-linked Glycans in Trypanosoma cruzi. Journal of Biological Chemistry, 1998, 273, 14982-14988.	1.6	72
15	Clotrimazole decreases human breast cancer cells viability through alterations in cytoskeleton-associated glycolytic enzymes. Molecular Genetics and Metabolism, 2005, 84, 354-362.	0.5	67
16	Carbohydrate Protection of Enzyme Structure and Function against Guanidinium Chloride Treatment Depends on the Nature of Carbohydrate and Enzyme. FEBS Journal, 1997, 248, 24-29.	0.2	65
17	Mayaro virus infection alters glucose metabolism in cultured cells through activation of the enzyme 6-phosphofructo 1-kinase. Molecular and Cellular Biochemistry, 2004, 266, 191-198.	1.4	62
18	Filamentous actin and its associated binding proteins are the stimulatory site for 6-phosphofructo-1-kinase association within the membrane of human erythrocytes. Biochimie, 2010, 92, 538-544.	1.3	59

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19	Serotonin activates glycolysis and mitochondria biogenesis in human breast cancer cells through activation of the Jak1/STAT3/ERK1/2 and adenylate cyclase/PKA, respectively. <i>British Journal of Cancer</i> , 2020, 122, 194-208.	2.9	55
20	Identification of chicoric acid as a hypoglycemic agent from <i>Ocimum gratissimum</i> leaf extract in a biomonitoring in vivo study. <i>FÄ-toterapÄ-Äç</i> , 2014, 93, 132-141.	1.1	51
21	Regulation of human erythrocyte metabolism by insulin: Cellular distribution of 6-phosphofructo-1-kinase and its implication for red blood cell function. <i>Molecular Genetics and Metabolism</i> , 2005, 86, 401-411.	0.5	50
22	Serotonin stimulates mouse skeletal muscle 6-phosphofructo-1-kinase through tyrosine-phosphorylation of the enzyme altering its intracellular localization. <i>Molecular Genetics and Metabolism</i> , 2007, 92, 364-370.	0.5	49
23	A radioassay for phosphofructokinase-1 activity in cell extracts and purified enzyme. <i>Journal of Proteomics</i> , 2002, 50, 129-140.	2.4	46
24	Inhibition of yeast glutathione reductase by trehalose: possible implications in yeast survival and recovery from stress. <i>International Journal of Biochemistry and Cell Biology</i> , 2004, 36, 900-908.	1.2	46
25	Clotrimazole inhibits and modulates heterologous association of the key glycolytic enzyme 6-phosphofructo-1-kinase. <i>Biochemical Pharmacology</i> , 2007, 73, 1520-1527.	2.0	46
26	Cellular distribution of phosphofructokinase activity and implications to metabolic regulation in human breast cancer. <i>Molecular Genetics and Metabolism</i> , 2003, 79, 294-299.	0.5	44
27	Metformin reverses hexokinase and 6-phosphofructo-1-kinase inhibition in skeletal muscle, liver and adipose tissues from streptozotocin-induced diabetic mouse. <i>Archives of Biochemistry and Biophysics</i> , 2010, 496, 53-60.	1.4	44
28	Effects of Food Additives on Immune Cells As Contributors to Body Weight Gain and Immune-Mediated Metabolic Dysregulation. <i>Frontiers in Immunology</i> , 2017, 8, 1478.	2.2	44
29	Calmodulin upregulates skeletal muscle 6-phosphofructo-1-kinase reversing the inhibitory effects of allosteric modulators. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2009, 1794, 1175-1180.	1.1	41
30	Subversion of Schwann Cell Glucose Metabolism by <i>Mycobacterium leprae</i> . <i>Journal of Biological Chemistry</i> , 2016, 291, 21375-21387.	1.6	41
31	Calcium influx: A possible role for insulin modulation of intracellular distribution and activity of 6-phosphofructo-1-kinase in human erythrocytes. <i>Molecular Genetics and Metabolism</i> , 2005, 86, 392-400.	0.5	40
32	Metformin reverses hexokinase and phosphofructokinase downregulation and intracellular distribution in the heart of diabetic mice. <i>IUBMB Life</i> , 2012, 64, 766-774.	1.5	40
33	Modulation of 6-phosphofructo-1-kinase oligomeric equilibrium by calmodulin: Formation of active dimmers. <i>Molecular Genetics and Metabolism</i> , 2006, 87, 253-261.	0.5	39
34	Fructose-2,6-bisphosphate counteracts guanidinium chloride-, thermal-, and ATP-induced dissociation of skeletal muscle key glycolytic enzyme 6-phosphofructo-1-kinase: A structural mechanism for PFK allosteric regulation. <i>Archives of Biochemistry and Biophysics</i> , 2007, 467, 275-282.	1.4	39
35	Epinephrine modulates cellular distribution of muscle phosphofructokinase. <i>Molecular Genetics and Metabolism</i> , 2003, 78, 302-306.	0.5	38
36	Reference genes for quantitative PCR in the adipose tissue of mice with metabolic disease. <i>Biomedicine and Pharmacotherapy</i> , 2017, 88, 948-955.	2.5	38

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37	Betaine protects urea-induced denaturation of myosin subfragment-1. FEBS Journal, 2008, 275, 3388-3396.	2.2	37
38	Preclinical efficacy of the novel competitive NAMPT inhibitor STF-118804 in pancreatic cancer. Oncotarget, 2017, 8, 85054-85067.	0.8	36
39	Protection against thermal denaturation by trehalose on the plasma membrane H ⁺ -ATPase from yeast. Synergetic effect between trehalose and phospholipid environment. FEBS Journal, 1999, 266, 660-664.	0.2	35
40	Counteracting effects of urea and methylamines in function and structure of skeletal muscle myosin. Archives of Biochemistry and Biophysics, 2002, 408, 272-278.	1.4	35
41	ATP and fructose-2,6-bisphosphate regulate skeletal muscle 6-phosphofructo-1-kinase by altering its quaternary structure. IUBMB Life, 2008, 60, 526-533.	1.5	34
42	Protective Role of Trehalose in Thermal Denaturation of Yeast Pyrophosphatase. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1994, 49, 327-330.	0.6	32
43	Clotrimazole disrupts glycolysis in human breast cancer without affecting non-tumoral tissues. Molecular Genetics and Metabolism, 2011, 103, 394-398.	0.5	32
44	SIRT1-Activating Compounds (STAC) Negatively Regulate Pancreatic Cancer Cell Growth and Viability Through a SIRT1 Lysosomal-Dependent Pathway. Clinical Cancer Research, 2016, 22, 2496-2507.	3.2	32
45	Hexokinase and phosphofructokinase activity and intracellular distribution correlate with aggressiveness and invasiveness of human breast carcinoma. Oncotarget, 2015, 6, 29375-29387.	0.8	32
46	A new class of mechanism-based inhibitors for Trypanosoma cruzi trans-sialidase and their influence on parasite virulence. Glycobiology, 2010, 20, 1034-1045.	1.3	31
47	Antidiabetic activity of <i>Sedum dendroideum</i> : Metabolic enzymes as putative targets for the bioactive flavonoid kaempferitrin. IUBMB Life, 2014, 66, 361-370.	1.5	30
48	Crude ethanol extract from babassu (<i>Orbignya speciosa</i>): cytotoxicity on tumoral and non-tumoral cell lines. Anais Da Academia Brasileira De Ciencias, 2008, 80, 467-476.	0.3	29
49	Serotonin modulates hepatic 6-phosphofructo-1-kinase in an insulin synergistic manner. International Journal of Biochemistry and Cell Biology, 2012, 44, 150-157.	1.2	28
50	Opposing effects of two osmolytes ? trehalose and glycerol ? on thermal inactivation of rabbit muscle 6-phosphofructo-1-kinase. Molecular and Cellular Biochemistry, 2005, 269, 203-207.	1.4	27
51	Clotrimazole potentiates the inhibitory effects of ATP on the key glycolytic enzyme 6-phosphofructo-1-kinase. Archives of Biochemistry and Biophysics, 2010, 497, 62-67.	1.4	27
52	Ocimum basilicum but not Ocimum gratissimum present cytotoxic effects on human breast cancer cell line MCF-7, inducing apoptosis and triggering mTOR/Akt/p70S6K pathway. Journal of Bioenergetics and Biomembranes, 2018, 50, 93-105.	1.0	27
53	Polymeric particles for the controlled release of human amylin. Colloids and Surfaces B: Biointerfaces, 2012, 94, 101-106.	2.5	26
54	Urea Increases Tolerance of Yeast Inorganic Pyrophosphatase Activity to Ethanol: The Other Side of Urea Interaction with Proteins. Archives of Biochemistry and Biophysics, 2001, 394, 61-66.	1.4	25

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55	Effects of insulin and actin on phosphofructokinase activity and cellular distribution in skeletal muscle. <i>Anais Da Academia Brasileira De Ciencias</i> , 2004, 76, 541-548.	0.3	25
56	Serotonin regulates an acyl-CoA-binding protein (ACBP) gene expression in the midgut of <i>Rhodnius prolixus</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2010, 40, 119-125.	1.2	23
57	Exogenous citrate impairs glucose tolerance and promotes visceral adipose tissue inflammation in mice. <i>British Journal of Nutrition</i> , 2016, 115, 967-973.	1.2	23
58	Trehalose Protects Yeast Pyrophosphatase against Structural and Functional Damage Induced by Guanidinium Chloride. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1996, 51, 160-164.	0.6	22
59	Proteomic Analysis of the Secretions of <i>Pseudallescheria boydii</i> , a Human Fungal Pathogen with Unknown Genome. <i>Journal of Proteome Research</i> , 2012, 11, 172-188.	1.8	21
60	Acetylsalicylic acid and salicylic acid present anticancer properties against melanoma by promoting nitric oxide-dependent endoplasmic reticulum stress and apoptosis. <i>Scientific Reports</i> , 2020, 10, 19617.	1.6	21
61	Insulin specifically regulates expression of liver and muscle phosphofructokinase isoforms. <i>Biomedicine and Pharmacotherapy</i> , 2018, 103, 228-233.	2.5	19
62	Muscle-type 6-phosphofructokinase and aldolase associate conferring catalytic advantages for both enzymes. <i>IUBMB Life</i> , 2011, 63, 435-445.	1.5	17
63	Effects of Trehalose and Ethanol on Yeast Cytosolic Pyrophosphatase. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1999, 54, 186-190.	0.6	15
64	p-Nitrophenylphosphatase Activity Catalyzed by Plasma Membrane (Ca ²⁺ +Mg ²⁺)ATPase: Correlation with Structural Changes Modulated by Glycerol and Ca ²⁺ . <i>Bioscience Reports</i> , 2001, 21, 25-32.	1.1	15
65	Serotonin regulates 6-phosphofructo-1-kinase activity in a PLC \rightarrow PKC \rightarrow CaMK II- and Janus kinase-dependent signaling pathway. <i>Molecular and Cellular Biochemistry</i> , 2013, 372, 211-220.	1.4	15
66	Amylin induces hypoglycemia in mice. <i>Anais Da Academia Brasileira De Ciencias</i> , 2013, 85, 349-354.	0.3	15
67	Polyols that Accumulate in Renal Tissue Uncouple the Plasma Membrane Calcium Pump and Counteract the Inhibition by Urea and Guanidine Hydrochloride. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1995, 50, 114-122.	0.6	14
68	Discrete Fourier Transform-Based Multivariate Image Analysis: Application to Modeling of Aromatase Inhibitory Activity. <i>ACS Combinatorial Science</i> , 2018, 20, 75-81.	3.8	14
69	Western diet leads to aging-related tumorigenesis via activation of the inflammatory, UPR, and EMT pathways. <i>Cell Death and Disease</i> , 2021, 12, 643.	2.7	14
70	Uncoupling by Trehalose of Ca ²⁺ Transport and ATP Hydrolysis by the Plasma Membrane (Ca ²⁺ +Mg ²⁺) ATPase of Kidney Tubules. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1994, 49, 141-146.	0.6	13
71	Nanomicellar Formulation of Clotrimazole Improves Its Antitumor Action toward Human Breast Cancer Cells. <i>PLoS ONE</i> , 2015, 10, e0130555.	1.1	13
72	Phosphatidylinositol-3-kinase as a putative target for anticancer action of clotrimazole. <i>International Journal of Biochemistry and Cell Biology</i> , 2015, 62, 132-141.	1.2	13

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73	Unique PFK regulatory property from some mosquito vectors of disease, and from <i>Drosophila melanogaster</i> . <i>Parasites and Vectors</i> , 2016, 9, 107.	1.0	12
74	Glucuronoxylomannan from <i>Cryptococcus neoformans</i> Down-regulates the Enzyme 6-Phosphofructo-1-kinase of Macrophages. <i>Journal of Biological Chemistry</i> , 2011, 286, 14820-14829.	1.6	11
75	A Novel Naphthotriazolyl-4-oxoquinoline Derivative that Selectively Controls Breast Cancer Cells Survival Through the Induction of Apoptosis. <i>Current Topics in Medicinal Chemistry</i> , 2018, 18, 1465-1474.	1.0	10
76	<i>Rhodnius prolixus</i> LIPOPHORIN: LIPID COMPOSITION AND EFFECT OF HIGH TEMPERATURE ON PHYSIOLOGICAL ROLE. <i>Archives of Insect Biochemistry and Physiology</i> , 2013, 82, 129-140.	0.6	9
77	Selective AMPK activator leads to unfolded protein response downregulation and induces breast cancer cell death and autophagy. <i>Life Sciences</i> , 2021, 276, 119470.	2.0	9
78	Therapeutic Nanosystems for Oral Administration of Insulin. <i>Current Pharmaceutical Biotechnology</i> , 2014, 15, 620-628.	0.9	9
79	A Novel Triazole Derivative Drug Presenting In Vitro and In Vivo Anticancer Properties. <i>Current Topics in Medicinal Chemistry</i> , 2018, 18, 1483-1493.	1.0	9
80	Monosaccharides and Disaccharides Decrease the K_m for Phosphorylation of a Membrane-Bound Enzyme ATPase. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1991, 46, 644-646.	0.6	8
81	Clotrimazole is effective for the regression of endometriotic implants in a Wistar rat experimental model of endometriosis. <i>Molecular and Cellular Endocrinology</i> , 2018, 476, 17-26.	1.6	8
82	Clotrimazole presents anticancer properties against a mouse melanoma model acting as a PI3K inhibitor and inducing repolarization of tumor-associated macrophages. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2021, 1867, 166263.	1.8	8
83	Adipocyte-specific <i>Nos2</i> deletion improves insulin resistance and dyslipidemia through brown fat activation in diet-induced obese mice. <i>Molecular Metabolism</i> , 2022, 57, 101437.	3.0	8
84	The Use of NMR Metabolite Profiling and <i>in vivo</i> Hypoglycemic Assay for Comparison of Unfractionated Aqueous Leaf Extracts of Two <i>Ocimum</i> Species. <i>Chemistry and Biodiversity</i> , 2016, 13, 686-694.	1.0	7
85	Phosphofructokinase ϵ P Modulates P44/42 MAPK Levels in HeLa Cells. <i>Journal of Cellular Biochemistry</i> , 2017, 118, 1216-1226.	1.2	7
86	Dietary citrate acutely induces insulin resistance and markers of liver inflammation in mice. <i>Journal of Nutritional Biochemistry</i> , 2021, 98, 108834.	1.9	7
87	Design, Synthesis and Biological Evaluation of 1H-1,2,3-Triazole-Linked-1H-Dibenzo[b,h]xanthenes as Inducers of ROS-Mediated Apoptosis in the Breast Cancer Cell Line MCF-7. <i>Medicinal Chemistry</i> , 2019, 15, 119-129.	0.7	7
88	Clotrimazole reduces endometriosis and the estrogen concentration by downregulating aromatase. <i>Reproduction</i> , 2020, 159, 779-786.	1.1	6
89	3-Bromopyruvate: A new strategy for inhibition of glycolytic enzymes in <i>Leishmania amazonensis</i> . <i>Experimental Parasitology</i> , 2021, 229, 108154.	0.5	5
90	Allosteric regulation of 6-phosphofructo-1-kinase activity of fat body and flight muscle from the bloodsucking bug <i>Rhodnius prolixus</i> . <i>Anais Da Academia Brasileira De Ciencias</i> , 2007, 79, 53-62.	0.3	4

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91	Inactivation of yeast inorganic pyrophosphatase by organic solvents. Anais Da Academia Brasileira De Ciencias, 2004, 76, 699-705.	0.3	4
92	Glycerol Inhibits or Uncouples the Plasma Membrane (Ca ²⁺ ++Mg ²⁺)ATPase of Kidney Proximal Tubules Depending on the Ca ²⁺ Concentration. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1995, 50, 845-853.	0.6	3
93	Hypocaloric diet with lower meal frequency did not affect weight loss, body composition and insulin responsiveness, but improved lipid profile: a randomized clinical trial. Food and Function, 2021, 12, 12594-12605.	2.1	2
94	Macromolecular confinement of therapeutic protein in polymeric particles for controlled release: insulin as a case study. Brazilian Journal of Pharmaceutical Sciences, 2017, 53, .	1.2	1