Edmund R S Kunji

List of Publications by Year
in descending order

118	9,541	36303	39675
papers	citations	51 h-index	94 g-index

132	132	132	9633
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Itaconate is an anti-inflammatory metabolite that activates Nrf2 via alkylation of KEAP1. Nature, 2018, 556, 113-117.	27.8	1,115
2	The proteotytic systems of lactic acid bacteria. Antonie Van Leeuwenhoek, 1996, 70, 187-221.	1.7	672
3	Identification and Functional Expression of the Mitochondrial Pyruvate Carrier. Science, 2012, 337, 93-96.	12.6	588
4	Overcoming barriers to membrane protein structure determination. Nature Biotechnology, 2011, 29, 335-340.	17.5	325
5	Optimization of membrane protein overexpression and purification using GFP fusions. Nature Methods, 2006, 3, 303-313.	19.0	297
6	Mitochondrial carriers in the cytoplasmic state have a common substrate binding site. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2617-2622.	7.1	237
7	Genetic and biochemical characterization of the oligopeptide transport system of Lactococcus lactis. Journal of Bacteriology, 1993, 175, 7523-7532.	2.2	224
8	A novel route for ATP acquisition by the remnant mitochondria of Encephalitozoon cuniculi. Nature, 2008, 453, 553-556.	27.8	222
9	The Molecular Mechanism of Transport by the Mitochondrial ADP/ATP Carrier. Cell, 2019, 176, 435-447.e15.	28.9	221
10	The mechanism of transport by mitochondrial carriers based on analysis of symmetry. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17766-17771.	7.1	200
11	The SLC25 Mitochondrial Carrier Family: Structure and Mechanism. Trends in Biochemical Sciences, 2020, 45, 244-258.	7.5	197
12	Structures of yeast mitochondrial ADP/ATP carriers support a domain-based alternating-access transport mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E426-34.	7.1	182
13	Lactococcus lactis as host for overproduction of functional membrane proteins. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1610, 97-108.	2.6	171
14	The extracellular PI-type proteinase of Lactococcus lactis hydrolyzes beta-casein into more than one hundred different oligopeptides. Journal of Bacteriology, 1995, 177, 3472-3478.	2.2	154
15	The role and structure of mitochondrial carriers. FEBS Letters, 2004, 564, 239-244.	2.8	142
16	The conserved substrate binding site of mitochondrial carriers. Biochimica Et Biophysica Acta - Bioenergetics, 2006, 1757, 1237-1248.	1.0	135
17	Perturbations of Native Membrane Protein Structure in Alkyl Phosphocholine Detergents: A Critical Assessment of NMR and Biophysical Studies. Chemical Reviews, 2018, 118, 3559-3607.	47.7	132
18	A scalable, GFP-based pipeline for membrane protein overexpression screening and purification. Protein Science, 2005, 14, 2011-2017.	7.6	121

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19	Multiple-peptidase mutants of Lactococcus lactis are severely impaired in their ability to grow in milk. Journal of Bacteriology, 1996, 178, 2794-2803.	2.2	116
20	Transport of Î²-Casein-derived Peptides by the Oligopeptide Transport System Is a Crucial Step in the Proteolytic Pathway of Lactococcus lactis. Journal of Biological Chemistry, 1995, 270, 1569-1574.	3.4	113
21	The transport mechanism of the mitochondrial ADP/ATP carrier. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 2379-2393.	4.1	110
22	The Insulin-like Growth Factor-Iâ€“mTOR Signaling Pathway Induces the Mitochondrial Pyrimidine Nucleotide Carrier to Promote Cell Growth. Molecular Biology of the Cell, 2007, 18, 3545-3555.	2.1	107
23	The projection structure of EmrE, a proton-linked multidrug transporter from Escherichia coli, at 7 A resolution. EMBO Journal, 2001, 20, 77-81.	7.8	101
24	Conserved properties of hydrogenosomal and mitochondrial ADP/ATP carriers: a common origin for both organelles. EMBO Journal, 2002, 21, 572-579.	7.8	99
25	Projection Structure of the Atractyloside-inhibited Mitochondrial ADP/ATP Carrier of Saccharomyces cerevisiae. Journal of Biological Chemistry, 2003, 278, 36985-36988.	3.4	98
26	The molecular features of uncoupling protein 1 support a conventional mitochondrial carrier-like mechanism. Biochimie, 2017, 134, 35-50.	2.6	95
27	Kinetics and Specificity of Peptide Uptake by the Oligopeptide Transport System of Lactococcus lactis. Biochemistry, 1998, 37, 16671-16679.	2.5	94
28	Recurrent De Novo Dominant Mutations in SLC25A4 Cause Severe Early-Onset Mitochondrial Disease and Loss of Mitochondrial DNA Copy Number. American Journal of Human Genetics, 2016, 99, 860-876.	6.2	93
29	The yeast mitochondrial ADP/ATP carrier functions as a monomer in mitochondrial membranes. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10830-10834.	7.1	90
30	Uncoupling protein 1 binds one nucleotide per monomer and is stabilized by tightly bound cardiolipin. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6973-6978.	7.1	88
31	Di-tripeptides and oligopeptides are taken up via distinct transport mechanisms in Lactococcus lactis. Journal of Bacteriology, 1993, 175, 2052-2059.	2.2	85
32	Higher Plant Plastids and Cyanobacteria Have Folate Carriers Related to Those of Trypanosomatids. Journal of Biological Chemistry, 2005, 280, 38457-38463.	3.4	83
33	A Novel ADP/ATP Transporter in the Mitosome of the Microaerophilic Human Parasite Entamoeba histolytica. Current Biology, 2005, 15, 737-742.	3.9	82
34	Determination of the molecular mass and dimensions of membrane proteins by size exclusion chromatography. Methods, 2008, 46, 62-72.	3.8	81
35	Calcium-induced conformational changes of the regulatory domain of human mitochondrial aspartate/glutamate carriers. Nature Communications, 2014, 5, 5491.	12.8	81
36	Yeast mitochondrial ADP/ATP carriers are monomeric in detergents. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16224-16229.	7.1	80

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37	Functional expression of eukaryotic membrane proteins inLactococcus lactis. Protein Science, 2005, 14, 3048-3056.	7.6	78
38	The SLC25 Carrier Family: Important Transport Proteins in Mitochondrial Physiology and Pathology. Physiology, 2020, 35, 302-327.	3.1	77
39	Mitochondrial carriers function as monomers. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 817-831.	1.0	74
40	Specificity of peptide transport systems in Lactococcus lactis: evidence for a third system which transports hydrophobic di- and tripeptides. Journal of Bacteriology, 1995, 177, 4652-4657.	2.2	72
41	Coupling of proton and substrate translocation in the transport cycle of mitochondrial carriers. Current Opinion in Structural Biology, 2010, 20, 440-447.	5.7	71
42	Plasma Membrane-Located Purine Nucleotide Transport Proteins Are Key Components for Host Exploitation by Microsporidian Intracellular Parasites. PLoS Pathogens, 2014, 10, e1004547.	4.7	69
43	Bactericidal mode of action of plantaricin C. Applied and Environmental Microbiology, 1996, 62, 2701-2709.	3.1	69
44	Reconstruction of the proteolytic pathway for use of Î²-casein byLactococcus lactis. Molecular Microbiology, 1998, 27, 1107-1118.	2.5	67
45	Trends in Thermostability Provide Information on the Nature of Substrate, Inhibitor, and Lipid Interactions with Mitochondrial Carriers. Journal of Biological Chemistry, 2015, 290, 8206-8217.	3.4	67
46	Lipid, Detergent, and Coomassie Blue G-250 Affect the Migration of Small Membrane Proteins in Blue Native Gels. Journal of Biological Chemistry, 2013, 288, 22163-22173.	3.4	60
47	Eukaryotic membrane protein overproduction in. Current Opinion in Biotechnology, 2005, 16, 546-551.	6.6	59
48	Functional and Structural Role of Amino Acid Residues in the Odd-numbered Transmembrane Î±-Helices of the Bovine Mitochondrial Oxoglutarate Carrier. Journal of Molecular Biology, 2007, 369, 400-412.	4.2	59
49	Expression and putative role of mitochondrial transport proteins in cancer. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 641-654.	1.0	58
50	Transporter gene acquisition and innovation in the evolution of Microsporidia intracellular parasites. Nature Communications, 2018, 9, 1709.	12.8	58
51	Mitochondrial pyruvate import and its effects on homeostasis. Current Opinion in Cell Biology, 2015, 33, 35-41.	5.4	57
52	Casein and Peptide Degradation in Lactic Acid Bacteria. Biotechnology and Genetic Engineering Reviews, 1997, 14, 279-302.	6.2	56
53	Formation of a cytoplasmic salt bridge network in the matrix state is a fundamental step in the transport mechanism of the mitochondrial ADP/ATP carrier. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 14-22.	1.0	55
54	Functional and Structural Role of Amino Acid Residues in the Even-numbered Transmembrane Î±-Helices of the Bovine Mitochondrial Oxoglutarate Carrier. Journal of Molecular Biology, 2006, 363, 51-62.	4.2	54

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55	The substrate specificity of the human ADP/ATP carrier AAC1. Molecular Membrane Biology, 2013, 30, 160-168.	2.0	50
56	The mitochondrial dicarboxylate and 2â€oxoglutarate carriers do not transport glutathione. FEBS Letters, 2015, 589, 621-628.	2.8	49
57	The three-dimensional structure of halorhodopsin to 5 A by electron crystallography: A new unbending procedure for two-dimensional crystals by using a global reference structure. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 4637-4642.	7.1	48
58	Structural changes in the transport cycle of the mitochondrial ADP/ATP carrier. Current Opinion in Structural Biology, 2019, 57, 135-144.	5.7	48
59	Structural insight into mitochondrial Î²-barrel outer membrane protein biogenesis. Nature Communications, 2020, 11, 3290.	12.8	48
60	Substrate Specificity of the Two Mitochondrial Ornithine Carriers Can Be Swapped by Single Mutation in Substrate Binding Site. Journal of Biological Chemistry, 2012, 287, 7925-7934.	3.4	47
61	Cardiolipin dynamics and binding to conserved residues in the mitochondrial ADP/ATP carrier. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1035-1045.	2.6	45
62	The yeast mitochondrial pyruvate carrier is a heteroâ€dimer in its functional state. EMBO Journal, 2019, 38, .	7.8	45
63	Screening of candidate substrates and coupling ions of transporters by thermostability shift assays. ELife, 2018, 7, .	6.0	45
64	Yeast Mitochondrial ADP/ATP Carriers Are Monomeric in Detergents as Demonstrated by Differential Affinity Purification. Journal of Molecular Biology, 2007, 371, 388-395.	4.2	44
65	Fate of peptides in peptidase mutants of Lactococcus lactis. Molecular Microbiology, 1996, 21, 123-131.	2.5	42
66	Probing the Interactions of Carboxy-atractyloside and Atractyloside with the Yeast Mitochondrial ADP/ATP Carrier. Structure, 2010, 18, 39-46.	3.3	42
67	How Detergent Impacts Membrane Proteins: Atomic-Level Views of Mitochondrial Carriers in Dodecylphosphocholine. Journal of Physical Chemistry Letters, 2018, 9, 933-938.	4.6	41
68	Physiological responses of Lactococcus lactis ML3 to alternating conditions of growth and starvation. Archives of Microbiology, 1993, 159, 372-379.	2.2	40
69	Specificity Mutants of the Binding Protein of the Oligopeptide Transport System of Lactococcus lactis. Journal of Bacteriology, 2000, 182, 1600-1608.	2.2	38
70	The Mimivirus Genome Encodes a Mitochondrial Carrier That Transports dATP and dTTP. Journal of Virology, 2007, 81, 3181-3186.	3.4	34
71	Mitochondrial carrier homolog 2 (MTCH2): The recruitment and evolution of a mitochondrial carrier protein to a critical player in apoptosis. Experimental Cell Research, 2012, 318, 1316-1323.	2.6	34
72	Calcium-induced conformational changes in the regulatory domain of the human mitochondrial ATP-Mg/Pi carrier. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1245-1253.	1.0	34

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73	Calcium regulation of the human mitochondrial ATP-Mg/Pi carrier SLC25A24 uses a locking pin mechanism. Scientific Reports, 2017, 7, 45383.	3.3	33
74	Electron crystallographic analysis of two-dimensional crystals of sensory rhodopsin II: A 6.9 Ã¥ projection structure1 1Edited by A. Klug. Journal of Molecular Biology, 2001, 308, 279-293.	4.2	32
75	Mitochondrial oxodicarboxylate carrier deficiency is associated with mitochondrial DNA depletion and spinal muscular atrophyâ€“like disease. Genetics in Medicine, 2018, 20, 1224-1235.	2.4	31
76	Pathogenic mutations of the human mitochondrial citrate carrier SLC25A1 lead to impaired citrate export required for lipid, dolichol, ubiquinone and sterol synthesis. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 1-7.	1.0	31
77	Structural Mechanism of Transport of Mitochondrial Carriers. Annual Review of Biochemistry, 2021, 90, 535-558.	11.1	31
78	Functional and structural role of amino acid residues in the matrix Î±-helices, termini and cytosolic loops of the bovine mitochondrial oxoglutarate carrier. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 302-310.	1.0	30
79	The mitochondrial ADP/ATP carrier exists and functions as a monomer. Biochemical Society Transactions, 2020, 48, 1419-1432.	3.4	24
80	Membrane Protein Expression in Lactococcus lactis. Methods in Molecular Biology, 2010, 601, 67-85.	0.9	23
81	Modelling the free energy profile of the mitochondrial ADP/ATP carrier. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 906-914.	1.0	23
82	Identification of Transport-critical Residues in a Folate Transporter from the Folate-Biopterin Transporter (FBT) Family. Journal of Biological Chemistry, 2010, 285, 2867-2875.	3.4	22
83	Membrane Protein Expression in Lactococcus lactis. Methods in Enzymology, 2015, 556, 77-97.	1.0	22
84	Cloning and functional expression in Escherichia coli of the gene encoding the di- and tripeptide transport protein of Lactobacillus helveticus. Applied and Environmental Microbiology, 1997, 63, 2213-2217.	3.1	22
85	The substrate specificity of mitochondrial carriers: Mutagenesis revisited. Molecular Membrane Biology, 2013, 30, 149-159.	2.0	21
86	Expanding the phenotype of de novo SLC25A4 -linked mitochondrial disease to include mild myopathy. Neurology: Genetics, 2018, 4, e256.	1.9	20
87	Mitochondrial ADP/ATP Carrier in Dodecylphosphocholine Binds Cardiolipins with Non-native Affinity. Biophysical Journal, 2017, 113, 2311-2315.	0.5	18
88	The mitochondrial transporter SLC25A25 links ciliary TRPP2 signaling and cellular metabolism. PLoS Biology, 2018, 16, e2005651.	5.6	18
89	TMEM63C mutations cause mitochondrial morphology defects and underlie hereditary spastic paraplegia. Brain, 2022, 145, 3095-3107.	7.6	17
90	Substrate binding in the mitochondrial ADP/ATP carrier is a step-wise process guiding the structural changes in the transport cycle. Nature Communications, 2022, 13, .	12.8	17

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91	Characterization of drug-induced human mitochondrial ADP/ATP carrier inhibition. Theranostics, 2021, 11, 5077-5091.	10.0	12
92	Calciumâ€regulated mitochondrial ATPâ€Mg/P_i carriers evolved from a fusion of an EFâ€hand regulatory domain with a mitochondrial ADP/ATP carrierâ€like domain. IUBMB Life, 2018, 70, 1222-1232.	3.4	11
93	Concerns with yeast mitochondrial ADP/ATP carrierâ€™s integrity in DPC. Nature Structural and Molecular Biology, 2018, 25, 747-749.	8.2	11
94	Comment on â€œProtein assemblies ejected directly from native membranes yield complexes for mass spectrometryâ€. Science, 2019, 366, .	12.6	10
95	Amino acid transport inLactobacillus helveticus. FEMS Microbiology Letters, 1998, 158, 249-253.	1.8	9
96	Expression and Purification of Membrane Proteins in Saccharomyces cerevisiae. Methods in Molecular Biology, 2020, 2127, 47-61.	0.9	8
97	Key features of inhibitor binding to the human mitochondrial pyruvate carrier hetero-dimer. Molecular Metabolism, 2022, 60, 101469.	6.5	8
98	Pathogenic variants of the mitochondrial aspartate/glutamate carrier causing citrin deficiency. Trends in Endocrinology and Metabolism, 2022, 33, 539-553.	7.1	8
99	8.9 Structural and Mechanistic Aspects of Mitochondrial Transport Proteins. , 2012, , 174-205.		7
100	Peptidases and growth of Lactococcus lactis in milk. Dairy Science and Technology, 1996, 76, 25-32.	0.9	7
101	Exome sequencing identifies a disease variant of the mitochondrial ATPâ€Mg/Pi carrier SLC25A25 in two families with kidney stones. Molecular Genetics & Genomic Medicine, 2021, , e1749.	1.2	6
102	Online Monitoring of Biomass Accumulation in Recombinant Yeast Cultures. Methods in Molecular Biology, 2012, 866, 165-179.	0.9	6
103	Activating ligands of Uncoupling protein 1 identified by rapid membrane protein thermostability shift analysis. Molecular Metabolism, 2022, 62, 101526.	6.5	6
104	A Single Cysteine Residue in the Translocation Pathway of the Mitosomal ADP/ATP Carrier from Cryptosporidium parvum Confers a Broad Nucleotide Specificity. International Journal of Molecular Sciences, 2020, 21, 8971.	4.1	5
105	Structure, substrate binding and symmetry of the mitochondrial ADP/ATP carrier in its matrix-open state. Biophysical Journal, 2021, 120, 5187-5195.	0.5	5
106	The proteolytic systems of lactic acid bacteria. , 1996, , 91-125.		4
107	Thermostability Assays: a Generic and Versatile Tool for Studying the Functional and Structural Properties of Membrane Proteins in Detergents. Methods in Molecular Biology, 2020, 2168, 105-121.	0.9	4
108	Online Analysis and Process Control in Recombinant Protein Production (Review). Methods in Molecular Biology, 2012, 866, 129-155.	0.9	2

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109	Membrane Protein Production in Lactococcus lactis for Functional Studies. Methods in Molecular Biology, 2016, 1432, 79-101.	0.9	2
110	Amino acid transport in Lactobacillus helveticus. FEMS Microbiology Letters, 1998, 158, 249-253.	1.8	2
111	Monitoring the Biomass Accumulation of Recombinant Yeast Cultures: Offline Estimations of Dry Cell Mass and Cell Counts. Methods in Molecular Biology, 2012, 866, 157-163.	0.9	1
112	Casein-breakdown by Lactococcus lactis. , 1996, , 303-326.		1
113	Probing the conformation of the yeast ADP/ATP carrier by fluorescent probes. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 42-43.	1.0	0
114	Editorial overview: COSB Membranes. Current Opinion in Structural Biology, 2019, 57, vi-viii.	5.7	0
115	Structure, Substrate Recognition, and Mechanism of the Na+-Hydantoin Membrane Transport Protein, Mhp1. , 2019, , 1-12.		0
116	Mitochondrial Transport Protein Family: Structure. , 2013, , 1548-1554.		0
117	Mitochondrial Transport Protein Family. , 2013, , 1544-1548.		0
118	Mitochondrial Transporters: Molecular Mechanism. , 2013, , 1554-1560.		0