Catherine F Clarke

List of Publications by Year
in descending order

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80 papers	3,881 citations	126708 33 h-index	143772 57 g-index
82 all docs	82 docs citations	82 times ranked	3556 citing authors

#	Article	IF	Citations
1	The metabolite Î±-ketoglutarate extends lifespan by inhibiting ATP synthase and TOR. Nature, 2014, 510, 397-401.	13.7	485
2	COQ6 mutations in human patients produce nephrotic syndrome with sensorineural deafness. Journal of Clinical Investigation, 2011, 121, 2013-2024.	3.9	343
3	ADCK4 mutations promote steroid-resistant nephrotic syndrome through CoQ10 biosynthesis disruption. Journal of Clinical Investigation, 2013, 123, 5179-5189.	3.9	275
4	Endogenous synthesis of coenzyme Q in eukaryotes. Mitochondrion, 2007, 7, S62-S71.	1.6	223
5	The COQ7 Gene Encodes a Protein in Saccharomyces cerevisiae Necessary for Ubiquinone Biosynthesis. Journal of Biological Chemistry, 1996, 271, 2995-3004.	1.6	174
6	A Defect in Coenzyme Q Biosynthesis Is Responsible for the Respiratory Deficiency in Saccharomyces cerevisiae abc1Mutants. Journal of Biological Chemistry, 2001, 276, 18161-18168.	1.6	113
7	Coenzyme Q10 deficiencies: pathways in yeast and humans. Essays in Biochemistry, 2018, 62, 361-376.	2.1	103
8	Expression of the human atypical kinase ADCK3 rescues coenzyme Q biosynthesis and phosphorylation of Coq polypeptides in yeast coq8 mutants. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2011, 1811, 348-360.	1.2	102
9	Small amounts of isotope-reinforced polyunsaturated fatty acids suppress lipid autoxidation. Free Radical Biology and Medicine, 2012, 53, 893-906.	1.3	95
10	Uptake of Exogenous Coenzyme Q and Transport to Mitochondria Is Required for bc1 Complex Stability in Yeast coq Mutants. Journal of Biological Chemistry, 2002, 277, 10973-10981.	1.6	94
11	para-Aminobenzoic Acid Is a Precursor in Coenzyme Q6 Biosynthesis in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2010, 285, 27827-27838.	1.6	94
12	Characterization of the COQ5 Gene from Saccharomyces cerevisiae EVIDENCE FOR A C-METHYLTRANSFERASE IN UBIQUINONE BIOSYNTHESIS. Journal of Biological Chemistry, 1997, 272, 9182-9188.	1.6	86
13	Saccharomyces cerevisiae Coq9 polypeptide is a subunit of the mitochondrial coenzyme Q biosynthetic complex. Archives of Biochemistry and Biophysics, 2007, 463, 19-26.	1.4	86
14	Coenzyme Q supplementation or over-expression of the yeast Coq8 putative kinase stabilizes multi-subunit Coq polypeptide complexes in yeast coq null mutants. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 630-644.	1.2	85
15	Overexpression of the Coq8 Kinase in Saccharomyces cerevisiae coq Null Mutants Allows for Accumulation of Diagnostic Intermediates of the Coenzyme Q6 Biosynthetic Pathway. Journal of Biological Chemistry, 2012, 287, 23571-23581.	1.6	84
16	The Saccharomyces cerevisiae COQ10 Gene Encodes a START Domain Protein Required for Function of Coenzyme Q in Respiration. Journal of Biological Chemistry, 2005, 280, 42627-42635.	1.6	81
17	Coq3 and Coq4 Define a Polypeptide Complex in Yeast Mitochondria for the Biosynthesis of Coenzyme Q. Journal of Biological Chemistry, 2005, 280, 20231-20238.	1.6	78
18	Conservation of the Caenorhabditis elegans timing gene clk-1 from yeast to human: a gene required for ubiquinone biosynthesis with potential implications for aging. Mammalian Genome, 1999, 10, 1000-1004.	1.0	76

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19	The yeast Coq4 polypeptide organizes a mitochondrial protein complex essential for coenzyme Q biosynthesis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2009, 1791, 69-75.	1.2	75
20	Genetic evidence for a multi-subunit complex in the O-methyltransferase steps of coenzyme Q biosynthesis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2000, 1484, 287-297.	1.2	74
21	Isotope-reinforced polyunsaturated fatty acids protect yeast cells from oxidative stress. Free Radical Biology and Medicine, 2011, 50, 130-138.	1.3	71
22	Yeast COQ4 Encodes a Mitochondrial Protein Required for Coenzyme Q Synthesis. Archives of Biochemistry and Biophysics, 2001, 392, 48-58.	1.4	65
23	Identification of Coq11, a New Coenzyme Q Biosynthetic Protein in the CoQ-Synthome in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2015, 290, 7517-7534.	1.6	65
24	Sensitivity to treatment with polyunsaturated fatty acids is a general characteristic of the ubiquinone-deficient yeast coq mutants. Molecular Aspects of Medicine, 1997, 18, 121-127.	2.7	57
25	Complementation of Saccharomyces cerevisiae coq7 Mutants by Mitochondrial Targeting of the Escherichia coli UbiF Polypeptide. Journal of Biological Chemistry, 2006, 281, 16401-16409.	1.6	56
26	Isotope-reinforced polyunsaturated fatty acids protect mitochondria from oxidative stress. Free Radical Biology and Medicine, 2015, 82, 63-72.	1.3	54
27	3-Hexaprenyl-4-hydroxybenzoic acid forms a predominant intermediate pool in ubiquinone biosynthesis in Saccharomyces cerevisiae. Archives of Biochemistry and Biophysics, 1995, 320, 305-314.	1.4	53
28	Molecular characterization of the human COQ5 C-methyltransferase in coenzyme Q10 biosynthesis. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 1628-1638.	1.2	48
29	New advances in coenzyme Q biosynthesis. Protoplasma, 2000, 213, 134-147.	1.0	39
30	Human COQ10A and COQ10B are distinct lipid-binding START domain proteins required for coenzyme Q function. Journal of Lipid Research, 2019, 60, 1293-1310.	2.0	38
31	ADCK4 Deficiency Destabilizes the Coenzyme Q Complex, Which Is Rescued by 2,4-Dihydroxybenzoic Acid Treatment. Journal of the American Society of Nephrology: JASN, 2020, 31, 1191-1211.	3.0	38
32	Resveratrol and para-coumarate serve as ring precursors for coenzyme Q biosynthesis. Journal of Lipid Research, 2015, 56, 909-919.	2.0	36
33	Treatment with 2,4-Dihydroxybenzoic Acid Prevents FSGS Progression and Renal Fibrosis in Podocyte-Specific Coq6 Knockout Mice. Journal of the American Society of Nephrology: JASN, 2019, 30, 393-405.	3.0	36
34	A tRNATRP gene mediates the suppression of cbs2-223 previously attributed to ABC1/COQ8. Biochemical and Biophysical Research Communications, 2004, 317, 648-653.	1.0	35
35	The Endoplasmic Reticulum-Mitochondria Encounter Structure Complex Coordinates Coenzyme Q Biosynthesis. Contact (Thousand Oaks (Ventura County, Calif)), 2019, 2, 251525641882540.	0.4	35
36	A conserved START domain coenzyme Q-binding polypeptide is required for efficient Q biosynthesis, respiratory electron transport, and antioxidant function in Saccharomyces cerevisiae. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2013, 1831, 776-791.	1.2	34

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37	Kaempferol increases levels of coenzyme Q in kidney cells and serves as a biosynthetic ring precursor. Free Radical Biology and Medicine, 2017, 110, 176-187.	1.3	32
38	The mitochondrial carrier SFXN1 is critical for complex III integrity and cellular metabolism. Cell Reports, 2021, 34, 108869.	2.9	30
39	Yeast Coq9 controls deamination of coenzyme Q intermediates that derive from para-aminobenzoic acid. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 1227-1239.	1.2	25
40	Coenzyme Q Biosynthesis: An Update on the Origins of the Benzenoid Ring and Discovery of New Ring Precursors. Metabolites, 2021, 11, 385.	1.3	25
41	Chromatin-remodeling SWI/SNF complex regulates coenzyme Q6 synthesis and a metabolic shift to respiration in yeast. Journal of Biological Chemistry, 2017, 292, 14851-14866.	1.6	21
42	Restoring de novo coenzyme Q biosynthesis in Caenorhabditis elegans coq-3 mutants yields profound rescue compared to exogenous coenzyme Q supplementation. Gene, 2012, 506, 106-116.	1.0	20
43	Characterization of Saccharomyces cerevisiae ubiquinoneâ€deficient mutants. BioFactors, 1999, 9, 121-129.	2.6	19
44	Ubiquinone Biosynthetic Complexes in Prokaryotes and Eukaryotes. Cell Chemical Biology, 2019, 26, 465-467.	2.5	17
45	Recombinant RquA catalyzes the in vivo conversion of ubiquinone to rhodoquinone in Escherichia coli and Saccharomyces cerevisiae. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2019, 1864, 1226-1234.	1.2	15
46	Human COQ9 Rescues a coq9 Yeast Mutant by Enhancing Coenzyme Q Biosynthesis from 4-Hydroxybenzoic Acid and Stabilizing the CoQ-Synthome. Frontiers in Physiology, 2017, 8, 463.	1.3	13
47	Genes and lipids that impact uptake and assimilation of exogenous coenzyme Q in Saccharomyces cerevisiae. Free Radical Biology and Medicine, 2020, 154, 105-118.	1.3	12
48	COQ11 deletion mitigates respiratory deficiency caused by mutations in the gene encoding the coenzyme Q chaperone protein Coq10. Journal of Biological Chemistry, 2020, 295, 6023-6042.	1.6	11
49	A dedicated flavin-dependent monooxygenase catalyzes the hydroxylation of demethoxyubiquinone into ubiquinone (coenzyme Q) in Arabidopsis. Journal of Biological Chemistry, 2021, 297, 101283.	1.6	10
50	Metabolism of the Flavonol Kaempferol in Kidney Cells Liberates the B-ring to Enter Coenzyme Q Biosynthesis. Molecules, 2020, 25, 2955.	1.7	8
51	Genetic screening reveals phospholipid metabolism as a key regulator of the biosynthesis of the redox-active lipid coenzyme Q. Redox Biology, 2021, 46, 102127.	3.9	8
52	Regulation of hepatic coenzyme Q biosynthesis by dietary omega-3 polyunsaturated fatty acids. Redox Biology, 2021, 46, 102061.	3.9	8
53	Unexpected role for vitamin B2. Nature, 2015, 522, 427-428.	13.7	7
54	Intragenic suppressor mutations of the COQ8 protein kinase homolog restore coenzyme Q biosynthesis and function in Saccharomyces cerevisiae. PLoS ONE, 2020, 15, e0234192.	1.1	6

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55	Coq6 Hydroxylase: Unmasked and Bypassed. Chemistry and Biology, 2011, 18, 1069-1070.	6.2	2
56	Insights into an Ancient Atypical Kinase Essential for Biosynthesis of Coenzyme Q. Cell Chemical Biology, 2018, 25, 123-125.	2.5	1
57	Characterization of Coq11, a novel protein involved in the biosynthesis of coenzyme Q in Saccharomyces cerevisiae. FASEB Journal, 2018, 32, 539.13.	0.2	1
58	Investigation of the Interacting Partners of Yeast Coq6: A Component of the Multienzyme Complex Required for Coenzyme Q Biosynthesis. FASEB Journal, 2006, 20, A952.	0.2	0
59	Coq2p function in the Saccharomyces cerevisiae coenzyme Q biosynthetic pathway. FASEB Journal, 2008, 22, 1036.2.	0.2	0
60	Characterization of a Coenzyme Q biosynthetic complex in Saccharomyces cerevisiae. FASEB Journal, 2010, 24, 849.1.	0.2	0
61	Expression of Human ADCK3 restores Coenzyme Q biosynthesis and Phosphorylation of Coq polypeptides in yeast abc1/coq8 mutants. FASEB Journal, 2010, 24, 849.8.	0.2	0
62	Using Thermotolerance to Explore Differences in Caenorhabditis elegans Diet. FASEB Journal, 2010, 24, 888.4.	0.2	0
63	Characterizing a coqâ€3 mutation that extends life span in C. elegans. FASEB Journal, 2010, 24, 660.1.	0.2	0
64	Yeast coq null mutants harboring multiâ€copy COQ8 accumulate novel intermediates in coenzyme Q biosynthesis. FASEB Journal, 2011, 25, 933.5.	0.2	0
65	Paraâ€amino benzoic Acid (pABA) serves as ring precursors of Coenzyme Q in both yeast and E. Coli.. FASEB Journal, 2013, 27, 585.18.	0.2	0
66	Characterizing the stabilizing effect of Coq8p and the function of Coq9p in yeast Q biosynthesis. FASEB Journal, 2013, 27, 820.1.	0.2	0
67	S. cerevisiae coq5 null mutants require overâ€expression of Coq8 kinase for rescue by E. coli COQ5 homolog ubiE. FASEB Journal, 2013, 27, 585.16.	0.2	0
68	Characterization of Proteins Associated with the Coenzyme Q Biosynthetic Complex and Analyses of Phosphorylated Coq Proteins in Yeast Mitochondria. FASEB Journal, 2015, 29, 568.29.	0.2	0
69	Coq9 regulates the deamination of Q6â€intermediates in yeast Q biosynthesis and human Coq9 homolog rescues yeast coq9 mutant by increasing the incorporation of 4â€hydroxybenzoic acid. FASEB Journal, 2015, 29, 568.13.	0.2	0
70	Characterization of S. cerevisiae Coq10p, a putative START domain Qâ€binding protein. FASEB Journal, 2015, 29, 568.27.	0.2	0
71	Genetic Screen for Suppressors of Y east Coq8 Mutants. FASEB Journal, 2015, 29, 568.18.	0.2	0
72	Studies into the farnesylated analogs of key intermediates in the biosynthetic pathway of Coenzyme Q: Synthesis and metabolism. FASEB Journal, 2015, 29, 568.30.	0.2	0

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73	Studies into the synthetic analogs of key intermediates, and ring precursors in the biosynthetic pathway of Coenzyme Q: Synthesis and metabolism. FASEB Journal, 2016, 30, 661.7.	0.2	0
74	Characterization of Saccharomyces cerevisiae Coenzyme Q Biosynthetic Protein Coq11. FASEB Journal, 2017, 31, 781.9.	0.2	0
75	Nutrient sensing and mitochondrial coenzyme Q biosynthesis: Are they connected by a phosphatase?. FASEB Journal, 2017, 31, 782.15.	0.2	0
76	Identifying genes required for the use of pâ€¢coumarate in coenzyme Q biosynthesis in Saccharomyces cerevisiae. FASEB Journal, 2018, 32, .	0.2	0
77	Human COQ10A and COQ10B are distinct putative StART domain proteins that restore Q biosynthesis and function in yeast. FASEB Journal, 2018, 32, 672.7.	0.2	0
78	Nutrient sensing and mitochondrial Coenzyme Q biosynthesis: Are they connected by a phosphatase?. FASEB Journal, 2018, 32, 539.17.	0.2	0
79	Polyunsaturated fatty acids directly regulate coenzyme Q biosynthesis. FASEB Journal, 2018, 32, 539.15.	0.2	0
80	Respiratory defects caused by mutations affecting the Endoplasmic Reticulumâ€Mitochondria Encounter Structure (ERMES) can be rescued by the deletion of COQ11. FASEB Journal, 2022, 36, .	0.2	0