

Alicia J Kowaltowski

List of Publications by Year in descending order

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126
papers

10,190
citations

36303

51
h-index

34986

98
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136
all docs

136
docs citations

136
times ranked

12357
citing authors

#	ARTICLE	IF	CITATIONS
1	<sc>MS</sc>â€Driven Metabolic Alterations Are Recapitulated in <sc>iPSC</sc>â€Derived Astrocytes. <i>Annals of Neurology</i> , 2022, 91, 652-669.	5.3	5
2	Disruption of polycystin-1 cleavage leads to cardiac metabolic rewiring in mice. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2022, 1868, 166371.	3.8	0
3	Regulation of kidney mitochondrial function by caloric restriction. <i>American Journal of Physiology - Renal Physiology</i> , 2022, 323, F92-F106.	2.7	4
4	Cold Exposure and the Metabolism of Mice, Men, and Other Wonderful Creatures. <i>Physiology</i> , 2022, 37, 253-259.	3.1	8
5	Responsible Science Assessment: downplaying indexes, boosting quality. <i>Anais Da Academia Brasileira De Ciencias</i> , 2021, 93, e20191513.	0.8	6
6	Changes in mitochondrial morphology modulate LPS-induced loss of calcium homeostasis in BV-2 microglial cells. <i>Journal of Bioenergetics and Biomembranes</i> , 2021, 53, 109-118.	2.3	8
7	Unveiling the contribution of the reproductive system of individual <i>Caenorhabditis elegans</i> on oxygen consumption by single-point scanning electrochemical microscopy measurements. <i>Analytica Chimica Acta</i> , 2021, 1146, 88-97.	5.4	7
8	Mitochondrial K ⁺ Transport: Modulation and Functional Consequences. <i>Molecules</i> , 2021, 26, 2935.	3.8	14
9	Increased glycolysis is an early consequence of palmitate lipotoxicity mediated by redox signaling. <i>Redox Biology</i> , 2021, 45, 102026.	9.0	15
10	Neurological disorders and mitochondria. <i>Molecular Aspects of Medicine</i> , 2020, 71, 100826.	6.4	60
11	Mitochondria: New developments in pathophysiology. <i>Molecular Aspects of Medicine</i> , 2020, 71, 100841.	6.4	3
12	A new target for an old DUB: UCH-L1 regulates mitofusin-2 levels, altering mitochondrial morphology, function and calcium uptake. <i>Redox Biology</i> , 2020, 37, 101676.	9.0	17
13	Calorie restriction changes muscle satellite cell proliferation in a manner independent of metabolic modulation. <i>Mechanisms of Ageing and Development</i> , 2020, 192, 111362.	4.6	9
14	Satellite cell selfâ€renewal in endurance exercise is mediated by inhibition of mitochondrial oxygen consumption. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2020, 11, 1661-1676.	7.3	31
15	Mice born to females with oocyte-specific deletion of mitofusin 2 have increased weight gain and impaired glucose homeostasis. <i>Molecular Human Reproduction</i> , 2020, 26, 938-952.	2.8	5
16	Functional changes induced by caloric restriction in cardiac and skeletal muscle mitochondria. <i>Journal of Bioenergetics and Biomembranes</i> , 2020, 52, 269-277.	2.3	18
17	Diazoxide Modulates Cardiac Hypertrophy by Targeting H ₂ O ₂ Generation and Mitochondrial Superoxide Dismutase Activity. <i>Current Molecular Pharmacology</i> , 2020, 13, 76-83.	1.5	10
18	Mitochondrial morphology regulates organellar Ca ²⁺ uptake and changes cellular Ca ²⁺ homeostasis. <i>FASEB Journal</i> , 2019, 33, 13176-13188.	0.5	90

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19	Plan S: Unrealistic capped fee structure. <i>Science</i> , 2019, 363, 461-461.	12.6	30
20	Distinct metabolic patterns during microglial remodeling by oleate and palmitate. <i>Bioscience Reports</i> , 2019, 39, .	2.4	30
21	Strategies to detect mitochondrial oxidants. <i>Redox Biology</i> , 2019, 21, 101065.	9.0	40
22	Fasting promotes functional changes in liver mitochondria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 129-135.	1.0	17
23	Where do we aspire to publish? A position paper on scientific communication in biochemistry and molecular biology. <i>Brazilian Journal of Medical and Biological Research</i> , 2019, 52, e8935.	1.5	1
24	Intermittent Fasting Effects on the Central Nervous System: How Hunger Modulates Brain Function. , 2019, , 1243-1260.		0
25	Cell culture models of fatty acid overload: Problems and solutions. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2018, 1863, 143-151.	2.4	87
26	Mitochondrial calcium transport and the redox nature of the calcium-induced membrane permeability transition. <i>Free Radical Biology and Medicine</i> , 2018, 129, 1-24.	2.9	90
27	Soluble Uric Acid Activates the NLRP3 Inflammasome. <i>Scientific Reports</i> , 2017, 7, 39884.	3.3	259
28	Calorie restriction promotes cardiolipin biosynthesis and distribution between mitochondrial membranes. <i>Mechanisms of Ageing and Development</i> , 2017, 162, 9-17.	4.6	21
29	Caloric restriction protects livers from ischemia/reperfusion damage by preventing Ca ²⁺ -induced mitochondrial permeability transition. <i>Free Radical Biology and Medicine</i> , 2017, 110, 219-227.	2.9	35
30	Exercise reestablishes autophagic flux and mitochondrial quality control in heart failure. <i>Autophagy</i> , 2017, 13, 1304-1317.	9.1	110
31	An active-learning methodology for teaching oxidative phosphorylation. <i>Medical Education</i> , 2017, 51, 1169-1170.	2.1	5
32	Caloric Restriction Promotes Structural and Metabolic Changes in the Skin. <i>Cell Reports</i> , 2017, 20, 2678-2692.	6.4	48
33	Single Cell Oxygen Mapping (SCOM) by Scanning Electrochemical Microscopy Uncovers Heterogeneous Intracellular Oxygen Consumption. <i>Scientific Reports</i> , 2017, 7, 11428.	3.3	19
34	Intermittent Fasting Effects on the Central Nervous System: How Hunger Modulates Brain Function. , 2017, , 1-18.		1
35	Diazoxide prevents reactive oxygen species and mitochondrial damage, leading to anti-hypertrophic effects. <i>Chemico-Biological Interactions</i> , 2017, 261, 50-55.	4.0	20
36	Caloric restriction increases brain mitochondrial calcium retention capacity and protects against excitotoxicity. <i>Aging Cell</i> , 2017, 16, 73-81.	6.7	75

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37	Bicarbonate Increases Ischemia-Reperfusion Damage by Inhibiting Mitophagy. PLoS ONE, 2016, 11, e0167678.	2.5	22
38	Diluted serum from calorie-restricted animals promotes mitochondrial cell adaptations and protect against glucolipotoxicity. FEBS Journal, 2016, 283, 822-833.	4.7	25
39	Mitochondrial form, function and signalling in aging. Biochemical Journal, 2016, 473, 3421-3449.	3.7	30
40	Bioenergetic profiling in the skin. Experimental Dermatology, 2016, 25, 147-148.	2.9	7
41	Murine Mesenchymal Stem Cell Commitment to Differentiation Is Regulated by Mitochondrial Dynamics. Stem Cells, 2016, 34, 743-755.	3.2	164
42	Effects of high fat diets on rodent liver bioenergetics and oxidative imbalance. Redox Biology, 2016, 8, 216-225.	9.0	127
43	Intermittent Fasting Results in Tissue-Specific Changes in Bioenergetics and Redox State. PLoS ONE, 2015, 10, e0120413.	2.5	57
44	Mitochondrial Retrograde Signaling: Triggers, Pathways, and Outcomes. Oxidative Medicine and Cellular Longevity, 2015, 2015, 1-10.	4.0	121
45	RTG1- and RTG2-dependent retrograde signaling controls mitochondrial activity and stress resistance in <i>Saccharomyces cerevisiae</i> . Free Radical Biology and Medicine, 2015, 81, 30-37.	2.9	27
46	Cardiolipin is a key determinant for mtDNA stability and segregation during mitochondrial stress. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 587-598.	1.0	46
47	H2O2 release from the very long chain acyl-CoA dehydrogenase. Redox Biology, 2015, 4, 375-380.	9.0	46
48	Phosphatidylglycerol-derived phospholipids have a universal, domain-crossing role in stress responses. Archives of Biochemistry and Biophysics, 2015, 585, 90-97.	3.0	25
49	Dietary restriction in cerebral bioenergetics and redox state. Redox Biology, 2014, 2, 296-304.	9.0	41
50	An Anoxia-starvation Model for Ischemia/Reperfusion in <i>C. elegans</i> . Journal of Visualized Experiments, 2014, .	0.3	2
51	Dietary restriction in cerebral bioenergetics and redox state. , 2014, 2, 296-296.		1
52	Mitochondria as a Source of Reactive Oxygen and Nitrogen Species: From Molecular Mechanisms to Human Health. Antioxidants and Redox Signaling, 2013, 18, 2029-2074.	5.4	344
53	<i>nde1</i> deletion improves mitochondrial DNA maintenance in <i>Saccharomyces cerevisiae</i> coenzyme Q mutants. Biochemical Journal, 2013, 449, 595-603.	3.7	21
54	Calorie Restriction Hysteretically Primes Aging <i>Saccharomyces cerevisiae</i> toward More Effective Oxidative Metabolism. PLoS ONE, 2013, 8, e56388.	2.5	25

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55	Deletion of the transcriptional regulator <i>opi1p</i> decreases cardiolipin content and disrupts mitochondrial metabolism in <i>Saccharomyces cerevisiae</i> . <i>Fungal Genetics and Biology</i> , 2013, 60, 150-158.	2.1	7
56	Bicarbonate modulates oxidative and functional damage in ischemiaâ€“reperfusion. <i>Free Radical Biology and Medicine</i> , 2013, 55, 46-53.	2.9	16
57	Mitochondrial metabolism in aging: Effect of dietary interventions. <i>Ageing Research Reviews</i> , 2013, 12, 22-28.	10.9	14
58	Diet-Sensitive Sources of Reactive Oxygen Species in Liver Mitochondria: Role of Very Long Chain Acyl-CoA Dehydrogenases. <i>PLoS ONE</i> , 2013, 8, e77088.	2.5	60
59	Exercise Training Restores Cardiac Protein Quality Control in Heart Failure. <i>PLoS ONE</i> , 2012, 7, e52764.	2.5	64
60	Calorie restriction increases cerebral mitochondrial respiratory capacity in a NOâ€“mediated mechanism: Impact on neuronal survival. <i>Free Radical Biology and Medicine</i> , 2012, 52, 1236-1241.	2.9	54
61	Mitochondrial compartmentalization of redox processes. <i>Free Radical Biology and Medicine</i> , 2012, 52, 2201-2208.	2.9	69
62	Serum from Calorie-Restricted Rats Activates Vascular Cell eNOS through Enhanced Insulin Signaling Mediated by Adiponectin. <i>PLoS ONE</i> , 2012, 7, e31155.	2.5	17
63	Mild Mitochondrial Uncoupling and Calorie Restriction Increase Fasting eNOS, Akt and Mitochondrial Biogenesis. <i>PLoS ONE</i> , 2011, 6, e18433.	2.5	71
64	Aging and calorie restriction modulate yeast redox state, oxidized protein removal, and the ubiquitinâ€“proteasome system. <i>Free Radical Biology and Medicine</i> , 2011, 51, 664-670.	2.9	36
65	Long-term intermittent feeding, but not caloric restriction, leads to redox imbalance, insulin receptor nitration, and glucose intolerance. <i>Free Radical Biology and Medicine</i> , 2011, 51, 1454-1460.	2.9	57
66	Redox regulation of the mitochondrial KATP channel in cardioprotection. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2011, 1813, 1309-1315.	4.1	87
67	Mitochondrial energy metabolism in neurodegeneration associated with methylmalonic acidemia. <i>Journal of Bioenergetics and Biomembranes</i> , 2011, 43, 39-46.	2.3	62
68	Neuronal differentiation involves a shift from glucose oxidation to fermentation. <i>Journal of Bioenergetics and Biomembranes</i> , 2011, 43, 531-539.	2.3	14
69	Respiratory and TCA cycle activities affect <i>S. cerevisiae</i> lifespan, response to caloric restriction and mtDNA stability. <i>Journal of Bioenergetics and Biomembranes</i> , 2011, 43, 483-491.	2.3	10
70	Mild Mitochondrial Uncoupling as a Therapeutic Strategy. <i>Current Drug Targets</i> , 2011, 12, 783-789.	2.1	71
71	Caloric restriction and redox state: Does this diet increase or decrease oxidant production?. <i>Redox Report</i> , 2011, 16, 237-241.	4.5	30
72	Effects of a high fat diet on liver mitochondria: increased ATP-sensitive K ⁺ channel activity and reactive oxygen species generation. <i>Journal of Bioenergetics and Biomembranes</i> , 2010, 42, 245-253.	2.3	24

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73	Yeast as a model to study mitochondrial mechanisms in ageing. <i>Mechanisms of Ageing and Development</i> , 2010, 131, 494-502.	4.6	40
74	Mitochondrial ion transport pathways: Role in metabolic diseases. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 832-838.	1.0	46
75	<i>Saccharomyces cerevisiae</i> coq10 null mutants are responsive to antimycin A. <i>FEBS Journal</i> , 2010, 277, 4530-4538.	4.7	19
76	Potent Cardioprotective Effect of the 4-Anilinoquinazoline Derivative PD153035: Involvement of Mitochondrial KATP Channel Activation. <i>PLoS ONE</i> , 2010, 5, e10666.	2.5	10
77	Commonly adopted caloric restriction protocols often involve malnutrition. <i>Ageing Research Reviews</i> , 2010, 9, 424-430.	10.9	56
78	Mitochondrial Reactive Oxygen Species in Myocardial Pre- and Postconditioning. , 2010, , 109-123.		0
79	Tissue-, substrate-, and site-specific characteristics of mitochondrial reactive oxygen species generation. <i>Free Radical Biology and Medicine</i> , 2009, 46, 1283-1297.	2.9	369
80	Mitochondria and reactive oxygen species. <i>Free Radical Biology and Medicine</i> , 2009, 47, 333-343.	2.9	904
81	Mitochondrial ATP-sensitive K ⁺ channels as redox signals to liver mitochondria in response to hypertriglyceridemia. <i>Free Radical Biology and Medicine</i> , 2009, 47, 1432-1439.	2.9	35
82	Cross-Talk Between Mitochondria and NADPH Oxidase: Effects of Mild Mitochondrial Dysfunction on Angiotensin II-Mediated Increase in Nox Isoform Expression and Activity in Vascular Smooth Muscle Cells. <i>Antioxidants and Redox Signaling</i> , 2009, 11, 1265-1278.	5.4	120
83	Nicorandil protects cardiac mitochondria against permeability transition induced by ischemia-reperfusion. <i>Journal of Bioenergetics and Biomembranes</i> , 2008, 40, 95-102.	2.3	24
84	trans,trans-2,4-decadienal induces mitochondrial dysfunction and oxidative stress. <i>Journal of Bioenergetics and Biomembranes</i> , 2008, 40, 103-109.	2.3	10
85	Increased aerobic metabolism is essential for the beneficial effects of caloric restriction on yeast life span. <i>Journal of Bioenergetics and Biomembranes</i> , 2008, 40, 381-8.	2.3	49
86	Redox properties of the adenosine triphosphate-sensitive K ⁺ channel in brain mitochondria. <i>Journal of Neuroscience Research</i> , 2008, 86, 1548-1556.	2.9	48
87	Mild mitochondrial uncoupling in mice affects energy metabolism, redox balance and longevity. <i>Aging Cell</i> , 2008, 7, 552-560.	6.7	285
88	Pharmacological and physiological stimuli do not promote Ca ²⁺ -sensitive K ⁺ channel activity in isolated heart mitochondria. <i>Cardiovascular Research</i> , 2007, 73, 720-728.	3.8	49
89	Dihydrolipoyl dehydrogenase as a source of reactive oxygen species inhibited by caloric restriction and involved in <i>Saccharomyces cerevisiae</i> aging. <i>FASEB Journal</i> , 2007, 21, 274-283.	0.5	116
90	Mitochondrial ATP-sensitive K ⁺ channels are redox-sensitive pathways that control reactive oxygen species production. <i>Free Radical Biology and Medicine</i> , 2007, 42, 1039-1048.	2.9	106

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91	Mitochondrial Energy Metabolism and Redox State in Dyslipidemias. <i>IUBMB Life</i> , 2007, 59, 263-268.	3.4	22
92	Ischemic preconditioning enhances fatty acid-dependent mitochondrial uncoupling. <i>Journal of Bioenergetics and Biomembranes</i> , 2007, 39, 313-320.	2.3	14
93	Hyperlipidemic Mice Present Enhanced Catabolism and Higher Mitochondrial ATP-Sensitive K ⁺ Channel Activity. <i>Gastroenterology</i> , 2006, 131, 1228-1234.	1.3	35
94	Diazoxide protects against methylmalonate-induced neuronal toxicity. <i>Experimental Neurology</i> , 2006, 201, 165-171.	4.1	25
95	Tissue protection mediated by mitochondrial K ⁺ channels. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2006, 1762, 202-212.	3.8	87
96	Mitochondrial Ca ²⁺ transport, permeability transition and oxidative stress in cell death: implications in cardiotoxicity, neurodegeneration and dyslipidemias. <i>Frontiers in Bioscience - Landmark</i> , 2006, 11, 2554.	3.0	66
97	Inhibition of specific electron transport pathways leads to oxidative stress and decreased <i>Candida albicans</i> proliferation. <i>Journal of Bioenergetics and Biomembranes</i> , 2006, 38, 129-135.	2.3	65
98	Ischemic preconditioning requires increases in reactive oxygen release independent of mitochondrial K ⁺ channel activity. <i>Free Radical Biology and Medicine</i> , 2006, 40, 469-479.	2.9	61
99	Mitochondrial ATP-Sensitive K ⁺ Channels Prevent Oxidative Stress, Permeability Transition and Cell Death. <i>Journal of Bioenergetics and Biomembranes</i> , 2005, 37, 75-82.	2.3	86
100	Mitochondrial K ⁺ transport and cardiac protection during ischemia/reperfusion. <i>Brazilian Journal of Medical and Biological Research</i> , 2005, 38, 345-352.	1.5	12
101	Redox Mechanisms of Cytoprotection by Bcl-2. <i>Antioxidants and Redox Signaling</i> , 2005, 7, 508-514.	5.4	82
102	Binding, Aggregation and Photochemical Properties of Methylene Blue in Mitochondrial Suspensions. <i>Photochemistry and Photobiology</i> , 2004, 79, 227.	2.5	163
103	Mitochondrial permeability transition in neuronal damage promoted by Ca ²⁺ and respiratory chain complex II inhibition. <i>Journal of Neurochemistry</i> , 2004, 90, 1025-1035.	3.9	79
104	Bcl-2 family proteins regulate mitochondrial reactive oxygen production and protect against oxidative stress. <i>Free Radical Biology and Medicine</i> , 2004, 37, 1845-1853.	2.9	77
105	A Highly Active ATP-Insensitive K ⁺ Import Pathway in Plant Mitochondria. <i>Journal of Bioenergetics and Biomembranes</i> , 2004, 36, 195-202.	2.3	33
106	Protection Against Ischemic Brain Injury by Inhibition of Mitochondrial Oxidative Stress. <i>Journal of Bioenergetics and Biomembranes</i> , 2004, 36, 347-352.	2.3	137
107	Phosphate Increases Mitochondrial Reactive Oxygen Species Release. <i>Free Radical Research</i> , 2004, 38, 1113-1118.	3.3	34
108	Higher Respiratory Activity Decreases Mitochondrial Reactive Oxygen Release and Increases Life Span in <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 49883-49888.	3.4	283

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109	Glutathione and thioredoxin peroxidases mediate susceptibility of yeast mitochondria to Ca ²⁺ -induced damage. <i>Archives of Biochemistry and Biophysics</i> , 2004, 425, 14-24.	3.0	34
110	Binding, aggregation and photochemical properties of methylene blue in mitochondrial suspensions. <i>Photochemistry and Photobiology</i> , 2004, 79, 227-232.	2.5	128
111	H ₂ O ₂ generation in <i>Saccharomyces cerevisiae</i> respiratory pet mutants: effect of cytochrome c. <i>Free Radical Biology and Medicine</i> , 2003, 35, 179-188.	2.9	57
112	Mitochondrial ATP-sensitive K ⁺ channel opening decreases reactive oxygen species generation. <i>FEBS Letters</i> , 2003, 536, 51-55.	2.8	123
113	Ischemic preconditioning inhibits mitochondrial respiration, increases H ₂ O ₂ release, and enhances K ⁺ transport. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2003, 285, H154-H162.	3.2	64
114	ATP-sensitive K ⁺ channels in renal mitochondria. <i>American Journal of Physiology - Renal Physiology</i> , 2003, 285, F1291-F1296.	2.7	61
115	Effect of Bcl-2 Overexpression on Mitochondrial Structure and Function. <i>Journal of Biological Chemistry</i> , 2002, 277, 42802-42807.	3.4	122
116	[25] Thiol enzymes protecting mitochondria against oxidative damage. <i>Methods in Enzymology</i> , 2002, 348, 260-270.	1.0	34
117	Mechanisms by which opening the mitochondrial ATP-sensitive K ⁺ channel protects the ischemic heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2002, 283, H284-H295.	3.2	192
118	Opening of mitochondrial K ⁺ channels increases ischemic ATP levels by preventing hydrolysis. <i>Journal of Bioenergetics and Biomembranes</i> , 2002, 34, 285-298.	2.3	36
119	Mitochondrial permeability transition and oxidative stress. <i>FEBS Letters</i> , 2001, 495, 12-15.	2.8	722
120	Bioenergetic consequences of opening the ATP-sensitive K ⁺ channel of heart mitochondria. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2001, 280, H649-H657.	3.2	305
121	Identification and Properties of a Novel Intracellular (Mitochondrial) ATP-sensitive Potassium Channel in Brain. <i>Journal of Biological Chemistry</i> , 2001, 276, 33369-33374.	3.4	257
122	Catalases and thioredoxin peroxidase protect <i>Saccharomyces cerevisiae</i> against Ca ²⁺ -induced mitochondrial membrane permeabilization and cell death. <i>FEBS Letters</i> , 2000, 473, 177-182.	2.8	60
123	Mitochondrial damage induced by conditions of oxidative stress. <i>Free Radical Biology and Medicine</i> , 1999, 26, 463-471.	2.9	720
124	Activation of the potato plant uncoupling mitochondrial protein inhibits reactive oxygen species generation by the respiratory chain. <i>FEBS Letters</i> , 1998, 425, 213-216.	2.8	147
125	Effect of Inorganic Phosphate Concentration on the Nature of Inner Mitochondrial Membrane Alterations Mediated by Ca ²⁺ Ions. <i>Journal of Biological Chemistry</i> , 1996, 271, 2929-2934.	3.4	169
126	Permeabilization of the inner mitochondrial membrane by Ca ²⁺ ions is stimulated by t-butyl hydroperoxide and mediated by reactive oxygen species generated by mitochondria. <i>Free Radical Biology and Medicine</i> , 1995, 18, 479-486.	2.9	218