Masatoshi Murai

List of Publications by Year
in descending order

68	1,459	279778	361001
papers	citations	23 h-index	35 g-index

74	74	74	1364
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Identification of receptors of main sexâ€pheromone components of three Lepidopteran species. European Journal of Neuroscience, 2008, 28, 893-902.	2.6	139
2	Synthetic biology based construction of biological activity-related library of fungal decalin-containing diterpenoid pyrones. Nature Communications, 2020, 11, 1830.	12.8	64
3	The ND1 Subunit Constructs the Inhibitor Binding Domain in Bovine Heart Mitochondrial Complex I. Biochemistry, 2007, 46, 6409-6416.	2.5	63
4	Current topics on inhibitors of respiratory complex I. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 884-891.	1.0	62
5	Characterization of the Inhibitor Binding Site in Mitochondrial NADHâ'Ubiquinone Oxidoreductase by Photoaffinity Labeling Using a Quinazoline-Type Inhibitor. Biochemistry, 2009, 48, 688-698.	2.5	59
6	Fenpyroximate Binds to the Interface between PSST and 49 kDa Subunits in Mitochondrial NADH-Ubiquinone Oxidoreductase. Biochemistry, 2012, 51, 1953-1963.	2.5	48
7	IACS-010759, a potent inhibitor of glycolysis-deficient hypoxic tumor cells, inhibits mitochondrial respiratory complex I through a unique mechanism. Journal of Biological Chemistry, 2020, 295, 7481-7491.	3.4	47
8	Probing the role of tryptophan-derived secondary metabolism in defense responses against Bipolaris oryzae infection in rice leaves by a suicide substrate of tryptophan decarboxylase. Phytochemistry, 2011, 72, 7-13.	2.9	46
9	Exploring Interactions between the 49 kDa and ND1 Subunits in Mitochondrial NADH-Ubiquinone Oxidoreductase (Complex I) by Photoaffinity Labeling. Biochemistry, 2011, 50, 6901-6908.	2.5	44
10	Mode of Inhibitory Action of Î"lac-Acetogenins, a New Class of Inhibitors of Bovine Heart Mitochondrial Complex Iâ€. Biochemistry, 2006, 45, 9778-9787.	2.5	42
11	Localization of Ubiquinone-8 in the Na+-pumping NADH:Quinone Oxidoreductase from Vibrio cholerae. Journal of Biological Chemistry, 2011, 286, 40075-40082.	3.4	42
12	Synthesis and Inhibition Mechanism of Î"lac-Acetogenins, a Novel Type of Inhibitor of Bovine Heart Mitochondrial Complex I. Biochemistry, 2005, 44, 816-825.	2.5	39
13	Dynamic Function of the Spacer Region of Acetogenins in the Inhibition of Bovine Mitochondrial NADH-Ubiquinone Oxidoreductase (Complex I). Biochemistry, 2008, 47, 6260-6266.	2.5	39
14	Mass Spectrometric Analysis of the Ubiquinol-binding Site in Cytochrome bd from Escherichia coli. Journal of Biological Chemistry, 2006, 281, 1905-1912.	3.4	35
15	Exploring the binding site of acetogenin in the ND1 subunit of bovine mitochondrial complex I. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 1106-1111.	1.0	35
16	Site-Specific Chemical Labeling of Mitochondrial Respiratory Complex I through Ligand-Directed Tosylate Chemistry. Biochemistry, 2014, 53, 2307-2317.	2.5	35
17	Bis-THF motif of acetogenin binds to the third matrix-side loop of ND1 subunit in mitochondrial NADH-ubiquinone oxidoreductase. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 1170-1176.	1.0	34
18	Dynamic Function of the Alkyl Spacer of Acetogenins in Their Inhibitory Action with Mitochondrial Complex I (NADH-Ubiquinone Oxidoreductase). Biochemistry, 2005, 44, 14898-14906.	2.5	30

#	Article	IF	Citations
19	Exploring the quinone/inhibitor-binding pocket in mitochondrial respiratory complex I by chemical biology approaches. Journal of Biological Chemistry, 2019, 294, 679-696.	3.4	30
20	Amilorides Bind to the Quinone Binding Pocket of Bovine Mitochondrial Complex I. Biochemistry, 2015, 54, 2739-2746.	2.5	28
21	Exploring the Binding Site of Î”lac-Acetogenin in Bovine Heart Mitochondrial NADHâ^'Ubiquinone Oxidoreductase. Biochemistry, 2010, 49, 4794-4803.	2.5	27
22	Reaction Mechanism of Single Subunit NADH-Ubiquinone Oxidoreductase (Ndi1) from Saccharomyces cerevisiae. Journal of Biological Chemistry, 2011, 286, 9287-9297.	3.4	27
23	Pinpoint Chemical Modification of Asp160 in the 49 kDa Subunit of Bovine Mitochondrial Complex I via a Combination of Ligand-Directed Tosyl Chemistry and Click Chemistry. Biochemistry, 2014, 53, 7816-7823.	2.5	24
24	Defining the mechanism of action of S1QELs, specific suppressors of superoxide production in the quinone-reaction site in mitochondrial complex I. Journal of Biological Chemistry, 2019, 294, 6550-6561.	3.4	21
25	Crucial Structural Factors and Mode of Action of Polyene Amides as Inhibitors for Mitochondrial NADHâ^'Ubiquinone Oxidoreductase (Complex I). Biochemistry, 2007, 46, 10365-10372.	2.5	20
26	Synthesis and Characterization of New Piperazine-Type Inhibitors for Mitochondrial NADH-Ubiquinone Oxidoreductase (Complex I). Biochemistry, 2008, 47, 10816-10826.	2.5	20
27	Identification of the Binding Position of Amilorides in the Quinone Binding Pocket of Mitochondrial Complex I. Biochemistry, 2015, 54, 3677-3686.	2.5	20
28	Identification of the binding sites for ubiquinone and inhibitors in the Na+-pumping NADH-ubiquinone oxidoreductase from Vibrio cholerae by photoaffinity labeling. Journal of Biological Chemistry, 2017, 292, 7727-7742.	3.4	19
29	Cryo-electron microscopy reveals how acetogenins inhibit mitochondrial respiratory complex I. Journal of Biological Chemistry, 2022, 298, 101602.	3.4	19
30	Synthesis of (4R,15R,16R,21S)- and (4R,15S,16S,21S)-rollicosin. Tetrahedron Letters, 2005, 46, 4671-4675.	1.4	17
31	Synthesis of non-THF analogs of acetogenin toward simplified mimics. Tetrahedron Letters, 2005, 46, 5775-5779.	1.4	17
32	Oversized ubiquinones as molecular probes for structural dynamics of the ubiquinone reaction site in mitochondrial respiratory complex I. Journal of Biological Chemistry, 2020, 295, 2449-2463.	3.4	17
33	Synthesis of (4R,15R,16R,21S)- and (4R,15S,16S,21S)-rollicosin, squamostolide, and their inhibitory action with bovine heart mitochondrial complex I. Bioorganic and Medicinal Chemistry, 2006, 14, 3119-3130.	3.0	16
34	Identification of the Binding Site of the Quinone-Head Group in Mitochondrial Coq10 by Photoaffinity Labeling. Biochemistry, 2014, 53, 3995-4003.	2.5	16
35	Antibiotic Korormicin A Kills Bacteria by Producing Reactive Oxygen Species. Journal of Bacteriology, 2019, 201, .	2.2	16
36	Characterization of the Ubiquinone Binding Site in the Alternative NADH-Quinone Oxidoreductase of Saccharomyces cerevisiae by Photoaffinity Labeling. Biochemistry, 2010, 49, 2973-2980.	2.5	15

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37	Concise procedure for the synthesis of cardiolipins having different fatty acid combinations. Tetrahedron Letters, 2010, 51, 2071-2073.	1.4	14
38	Fusaramin, an antimitochondrial compound produced by Fusarium sp., discovered using multidrug-sensitive Saccharomyces cerevisiae. Journal of Antibiotics, 2019, 72, 645-652.	2.0	13
39	Comprehensive understanding of multiple actions of anticancer drug tamoxifen in isolated mitochondria. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148520.	1.0	13
40	Synthetic Ubiquinones Specifically Bind to Mitochondrial Voltage-Dependent Anion Channel 1 (VDAC1) in Saccharomyces cerevisiae Mitochondria. Biochemistry, 2017, 56, 570-581.	2.5	12
41	Inhibitors of a Na+-pumping NADH-ubiquinone oxidoreductase play multiple roles to block enzyme function. Journal of Biological Chemistry, 2020, 295, 12739-12754.	3.4	11
42	Function of the alkyl side chains of Î”lac-acetogenins in the inhibitory effect on mitochondrial complex I (NADH-ubiquinone oxidoreductase). Bioorganic and Medicinal Chemistry Letters, 2006, 16, 3555-3558.	2.2	10
43	Complementation of coenzyme Qâ€deficient yeast by coenzyme Q analogues requires the isoprenoid side chain. FEBS Journal, 2010, 277, 2067-2082.	4.7	10
44	Production of new amilorides as potent inhibitors of mitochondrial respiratory complex I. Bioscience, Biotechnology and Biochemistry, 2015, 79, 1061-1066.	1.3	10
45	Ascosteroside C, a new mitochondrial respiration inhibitor discovered by pesticidal screening using recombinant Saccharomyces cerevisiae. Journal of Antibiotics, 2015, 68, 649-652.	2.0	9
46	Trichopolyn VI: a new peptaibol insecticidal compound discovered using a recombinant Saccharomyces cerevisiae screening system. Journal of General and Applied Microbiology, 2015, 61, 82-87.	0.7	8
47	Pinpoint Chemical Modification of the Quinone-Access Channel of Mitochondrial Complex I via a Two-Step Conjugation Reaction. Biochemistry, 2017, 56, 4279-4287.	2.5	8
48	Reduction of Synthetic Ubiquinone QT Catalyzed by Bovine Mitochondrial Complex I Is Decoupled from Proton Translocation. Biochemistry, 2016, 55, 470-481.	2.5	7
49	Pinpoint Dual Chemical Cross-Linking Explores the Structural Dynamics of the Ubiquinone Reaction Site in Mitochondrial Complex I. Biochemistry, 2021, 60, 813-824.	2.5	7
50	Chemical modifications of respiratory complex I for structural and functional studies. Journal of Bioenergetics and Biomembranes, 2014, 46, 313-321.	2.3	6
51	Specific Methylation of Asp160 (49 kDa subunit) Located inside the Quinone Binding Cavity of Bovine Mitochondrial Complex I. Biochemistry, 2016, 55, 3189-3197.	2.5	6
52	Characterization of the reaction of decoupling ubiquinone with bovine mitochondrial respiratory complex I. Bioscience, Biotechnology and Biochemistry, 2016, 80, 1464-1469.	1.3	5
53	Exploring the binding pocket of quinone/inhibitors in mitochondrial respiratory complex I by chemical biology approaches. Bioscience, Biotechnology and Biochemistry, 2020, 84, 1322-1331.	1.3	5
54	Synthesis and characterization of photoaffinity probe of acetogenin, a strong inhibitor of mitochondrial complex I. Tetrahedron Letters, 2011, 52, 3090-3093.	1.4	4

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55	Pentenediol-Type Compounds Specifically Bind to Voltage-Dependent Anion Channel 1 in Saccharomyces cerevisiae Mitochondria. Biochemistry, 2019, 58, 1141-1154.	2.5	4
56	Traminines A and B, produced by Fusarium concentricum, inhibit oxidative phosphorylation in Saccharomyces cerevisiae mitochondria. Journal of Industrial Microbiology and Biotechnology, 2021, 48, .	3.0	4
57	Specific chemical modification explores dynamic structure of the NqrB subunit in Na+-pumping NADH-ubiquinone oxidoreductase from Vibrio cholerae. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148432.	1.0	4
58	Photoaffinity Labeling of Respiratory Complex I in Bovine Heart Submitochondrial Particles by Photoreactive [125I] amilorides. Bio-protocol, 2019, 9, e3349.	0.4	4
59	Synthesis of photolabile .DELTA.lac-acetogenin for photoaffinity labeling of mitochondrial complex I. Journal of Pesticide Sciences, 2006, 31, 156-158.	1.4	3
60	Diverse reaction behaviors of artificial ubiquinones in mitochondrial respiratory complex I. Journal of Biological Chemistry, 2022, 298, 102075.	3.4	3
61	Synthesis and Inhibitory Action of Novel Acetogenin Mimicsî”lac-Acetogenins: A New Class of Inhibitors of Mitochondrial NADH-Ubiquinone Oxidoreductase (Complex-I). , 0, , 171-174.		2
62	Natural tetramic acids elicit multiple inhibitory actions against mitochondrial machineries presiding over oxidative phosphorylation. Bioscience, Biotechnology and Biochemistry, 2021, 85, 2368-2377.	1.3	2
63	The side chain of ubiquinone plays a critical role in Na+ translocation by the NADH-ubiquinone oxidoreductase (Na+-NQR) from Vibrio cholerae. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148547.	1.0	2
64	Epoxycyclohexenedione-Type Compounds Make Up a New Class of Inhibitors of the Bovine Mitochondrial ADP/ATP Carrier. Biochemistry, 2018, 57, 1031-1044.	2.5	1
65	Action mechanism of the inhibitors of mitochondrial respiratory complex I based on structure-activity relationship (SAR) studies. Japanese Journal of Pesticide Science, 2017, 42, 44-48.	0.0	0
66	Characterization of the ubiquinone-binding protein Coq10 using a synthetic ubiquinone probe. Japanese Journal of Pesticide Science, 2017, 42, 65-70.	0.0	0
67	Poster Presentation: Session 2 Pesticide Biochemistry/Formulation. Journal of Pesticide Sciences, 2010, 35, 193-194.	1.4	0
68	Chapter 6. The Na+-Translocating NADH: Ubiquinone Oxidoreductase (Na+-NQR). Chemical Biology, 0, , 140-160.	0.2	0