Varda Shoshan-Barmatz

List of Publications by Year
in descending order

93 papers	8,078 citations	41344 49 h-index	48315 88 g-index
93 all docs	93 docs citations	93 times ranked	6748 citing authors

#	Article	IF	Citations
1	VDAC, a multi-functional mitochondrial protein regulating cell life and death. Molecular Aspects of Medicine, 2010, 31, 227-285.	6.4	607
2	In self-defence: hexokinase promotes voltage-dependent anion channel closure and prevents mitochondria-mediated apoptotic cell death. Biochemical Journal, 2004, 377, 347-355.	3.7	363
3	VDAC oligomers form mitochondrial pores to release mtDNA fragments and promote lupus-like disease. Science, 2019, 366, 1531-1536.	12.6	344
4	Calcium binding and translocation by the voltage-dependent anion channel: a possible regulatory mechanism in mitochondrial function. Biochemical Journal, 2001, 358, 147-155.	3.7	303
5	Misfolded Mutant SOD1 Directly Inhibits VDAC1 Conductance in a Mouse Model of Inherited ALS. Neuron, 2010, 67, 575-587.	8.1	256
6	Hexokinase-I Protection against Apoptotic Cell Death Is Mediated via Interaction with the Voltage-dependent Anion Channel-1. Journal of Biological Chemistry, 2008, 283, 13482-13490.	3.4	226
7	Calcium binding and translocation by the voltage-dependent anion channel: a possible regulatory mechanism in mitochondrial function. Biochemical Journal, 2001, 358, 147.	3.7	224
8	The expression level of the voltage-dependent anion channel controls life and death of the cell. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5787-5792.	7.1	218
9	VDAC, a multi-functional mitochondrial protein as a pharmacological target. Mitochondrion, 2012, 12, 24-34.	3.4	206
10	Oligomerization of the Mitochondrial Protein Voltage-Dependent Anion Channel Is Coupled to the Induction of Apoptosis. Molecular and Cellular Biology, 2010, 30, 5698-5709.	2.3	202
11	The VDAC1 N-terminus is essential both for apoptosis and the protective effect of anti-apoptotic proteins. Journal of Cell Science, 2009, 122, 1906-1916.	2.0	201
12	Oligomeric states of the voltage-dependent anion channel and cytochrome c release from mitochondria. Biochemical Journal, 2005, 386, 73-83.	3.7	194
13	The mitochondrial voltage-dependent anion channel 1 in tumor cells. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 2547-2575.	2.6	194
14	The Voltage-Dependent Anion Channel: Characterization, Modulation, and Role in Mitochondrial Function in Cell Life and Death. Cell Biochemistry and Biophysics, 2003, 39, 279-292.	1.8	180
15	Uncovering the role of VDAC in the regulation of cell life and death. Journal of Bioenergetics and Biomembranes, 2008, 40, 183-191.	2.3	159
16	VDAC1: from structure to cancer therapy. Frontiers in Oncology, 2012, 2, 164.	2.8	159
17	VDAC1, mitochondrial dysfunction, and Alzheimer's disease. Pharmacological Research, 2018, 131, 87-101.	7.1	153
18	Mediation of the Antiapoptotic Activity of Bcl-xL Protein upon Interaction with VDAC1 Protein. Journal of Biological Chemistry, 2012, 287, 23152-23161.	3.4	143

#	Article	IF	Citations
19	Voltage-dependent Anion Channel 1-based Peptides Interact with Hexokinase to Prevent Its Anti-apoptotic Activity. Journal of Biological Chemistry, 2009, 284, 3946-3955.	3.4	141
20	Voltage-dependent Anion Channel 1-based Peptides Interact with Bcl-2 to Prevent Antiapoptotic Activity. Journal of Biological Chemistry, 2010, 285, 6053-6062.	3.4	139
21	Apoptosis is regulated by the VDAC1 N-terminal region and by VDAC oligomerization: release of cytochrome c, AIF and Smac/Diablo. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1281-1291.	1.0	123
22	Key regions of VDAC1 functioning in apoptosis induction and regulation by hexokinase. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 421-430.	1.0	114
23	VDAC/porin is present in sarcoplasmic reticulum from skeletal muscle. FEBS Letters, 1996, 386, 205-210.	2.8	113
24	Silencing VDAC1 Expression by siRNA Inhibits Cancer Cell Proliferation and Tumor Growth In Vivo. Molecular Therapy - Nucleic Acids, 2014, 3, e159.	5.1	110
25	The Voltage-dependent Anion Channel 1 Mediates Amyloid Î² Toxicity and Represents a Potential Target for Alzheimer Disease Therapy. Journal of Biological Chemistry, 2015, 290, 30670-30683.	3.4	109
26	The BH4 Domain of Anti-apoptotic Bcl-XL, but Not That of the Related Bcl-2, Limits the Voltage-dependent Anion Channel 1 (VDAC1)-mediated Transfer of Pro-apoptotic Ca2+ Signals to Mitochondria. Journal of Biological Chemistry, 2015, 290, 9150-9161.	3.4	108
27	VDAC1 at the crossroads of cell metabolism, apoptosis and cell stress. Cell Stress, 2017, 1, 11-36.	3.2	101
28	VDAC1 functions in Ca2+ homeostasis and cell life and death in health and disease. Cell Calcium, 2018, 69, 81-100.	2.4	100
29	Preserving Insulin Secretion in Diabetes by Inhibiting VDAC1 Overexpression and Surface Translocation in Î² Cells. Cell Metabolism, 2019, 29, 64-77.e6.	16.2	100
30	Subcellular localization of VDAC in mitochondria and ER in the cerebellum. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1657, 105-114.	1.0	97
31	VDAC1 at the Intersection of Cell Metabolism, Apoptosis, and Diseases. Biomolecules, 2020, 10, 1485.	4.0	93
32	The role of calcium in VDAC1 oligomerization and mitochondria-mediated apoptosis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 1745-1754.	4.1	90
33	Voltage-Dependent Anion Channel 1 As an Emerging Drug Target for Novel Anti-Cancer Therapeutics. Frontiers in Oncology, 2017, 7, 154.	2.8	89
34	Modulation of the voltage-dependent anion channel (VDAC) by glutamate. Journal of Bioenergetics and Biomembranes, 2000, 32, 571-583.	2.3	87
35	Structure-based analysis of VDAC1: N-terminus location, translocation, channel gating and association with anti-apoptotic proteins. Biochemical Journal, 2012, 444, 475-485.	3.7	87
36	Fluoxetine (Prozac) interaction with the mitochondrial voltage-dependent anion channel and protection against apoptotic cell death. FEBS Letters, 2005, 579, 5105-5110.	2.8	85

#	Article	IF	Citations
37	Novel Compounds Targeting the Mitochondrial Protein VDAC1 Inhibit Apoptosis and Protect against Mitochondrial Dysfunction. Journal of Biological Chemistry, 2016, 291, 24986-25003.	3.4	83
38	The Mitochondrial Voltage-Dependent Anion Channel 1, Ca2+ Transport, Apoptosis, and Their Regulation. Frontiers in Oncology, 2017, 7, 60.	2.8	79
39	Ca2+-mediated regulation of VDAC1 expression levels is associated with cell death induction. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2270-2281.	4.1	77
40	Structure-based Analysis of VDAC1 Protein. Journal of Biological Chemistry, 2012, 287, 2179-2190.	3.4	73
41	VDAC1 and the TSPO: Expression, Interactions, and Associated Functions in Health and Disease States. International Journal of Molecular Sciences, 2019, 20, 3348.	4.1	68
42	Localization of the voltage-dependent anion channel-1 Ca2+-binding sites. Cell Calcium, 2007, 41, 235-244.	2.4	66
43	Expression of a Truncated Active Form of VDAC1 in Lung Cancer Associates with Hypoxic Cell Survival and Correlates with Progression to Chemotherapy Resistance. Cancer Research, 2012, 72, 2140-2150.	0.9	64
44	Downregulation of voltage-dependent anion channel-1 expression by RNA interference prevents cancer cell growth in vivo. Cancer Biology and Therapy, 2010, 9, 1046-1052.	3.4	60
45	VDAC1-interacting anion transport inhibitors inhibit VDAC1 oligomerization and apoptosis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 1612-1623.	4.1	57
46	Targeting Liver Cancer and Associated Pathologies in Mice with a Mitochondrial VDAC1-Based Peptide. Neoplasia, 2018, 20, 594-609.	5.3	57
47	Oligomerization of the Mitochondrial Protein VDAC1. Progress in Molecular Biology and Translational Science, 2013, 117, 303-334.	1.7	56
48	VDAC1 is a molecular target in glioblastoma, with its depletion leading to reprogrammed metabolism and reversed oncogenic properties. Neuro-Oncology, 2017, 19, 951-964.	1.2	55
49	Selective induction of cancer cell death by <scp>VDAC</scp>1â€based peptides and their potential use in cancer therapy. Molecular Oncology, 2018, 12, 1077-1103.	4.6	55
50	Nucleotide-binding Sites in the Voltage-dependent Anion Channel. Journal of Biological Chemistry, 2006, 281, 5938-5946.	3.4	54
51	VDAC1 as a Player in Mitochondria-Mediated Apoptosis and Target for Modulating Apoptosis. Current Medicinal Chemistry, 2018, 24, 4435-4446.	2.4	50
52	Glutamate Interacts with VDAC and Modulates Opening of the Mitochondrial Permeability Transition Pore. Journal of Bioenergetics and Biomembranes, 2004, 36, 179-186.	2.3	45
53	Mapping the ruthenium red-binding site of the voltage-dependent anion channel-1. Cell Calcium, 2008, 43, 196-204.	2.4	43
54	VDAC1 cysteine residues: topology and function in channel activity and apoptosis. Biochemical Journal, 2010, 427, 445-454.	3.7	43

#	Article	IF	Citations
55	A New Fungal Diterpene Induces VDAC1-dependent Apoptosis in Bax/Bak-deficient Cells. Journal of Biological Chemistry, 2015, 290, 23563-23578.	3.4	42
56	The interaction of local anesthetics with the ryanodine receptor of the sarcoplasmic reticulum. Journal of Membrane Biology, 1993, 133, 171-81.	2.1	38
57	Characterization and photoaffinity labeling of the ATP binding site of the ryanodine receptor from skeletal muscle. FEBS Journal, 1993, 213, 147-154.	0.2	38
58	Mitochondrial VDAC1 Silencing Leads to Metabolic Rewiring and the Reprogramming of Tumour Cells into Advanced Differentiated States. Cancers, 2018, 10, 499.	3.7	38
59	The role of the mitochondrial protein VDAC1 in inflammatory bowel disease: a potential therapeutic target. Molecular Therapy, 2022, 30, 726-744.	8.2	35
60	Reducing VDAC1 expression induces a non-apoptotic role for pro-apoptotic proteins in cancer cell differentiation. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1228-1242.	1.0	29
61	Mitochondrial VDAC, the Na+/Ca2+ Exchanger, and the Ca2+ Uniporter in Ca2+ Dynamics and Signaling. Advances in Experimental Medicine and Biology, 2017, 981, 323-347.	1.6	29
62	Metabolic Reprograming Via Silencing of Mitochondrial VDAC1 Expression Encourages Differentiation of Cancer Cells. Molecular Therapy - Nucleic Acids, 2019, 17, 24-37.	5.1	28
63	An N-terminal nucleotide-binding site in VDAC1: Involvement in regulating mitochondrial function. Journal of Cellular Physiology, 2007, 212, 551-561.	4.1	27
64	A Mitochondrial VDAC1-Based Peptide Greatly Suppresses Steatosis and NASH-Associated Pathologies in a Mouse Model. Molecular Therapy, 2019, 27, 1848-1862.	8.2	27
65	Mitochondrial VDAC1-based peptides: Attacking oncogenic properties in glioblastoma. Oncotarget, 2017, 8, 31329-31346.	1.8	26
66	A Photoactivable Probe for Calcium Binding Proteins. Chemistry and Biology, 2005, 12, 1169-1178.	6.0	25
67	A New Role for the Mitochondrial Pro-apoptotic Protein SMAC/Diablo in Phospholipid Synthesis Associated with Tumorigenesis. Molecular Therapy, 2018, 26, 680-694.	8.2	25
68	Retinal voltage-dependent anion channel: characterization and cellular localization. Investigative Ophthalmology and Visual Science, 2002, 43, 2097-104.	3.3	25
69	Dicyclohexylcarbodiimide interaction with the voltage-dependent anion channel from sarcoplasmic reticulum. FEBS Journal, 1998, 253, 627-636.	0.2	23
70	A molecular signature of lung cancer: potential biomarkers for adenocarcinoma and squamous cell carcinoma. Oncotarget, 2017, 8, 105492-105509.	1.8	23
71	A VDAC1-Derived N-Terminal Peptide Inhibits Mutant SOD1-VDAC1 Interactions and Toxicity in the SOD1 Model of ALS. Frontiers in Cellular Neuroscience, 2019, 13, 346.	3.7	23
72	Adverse Effects of Metformin From Diabetes to COVID-19, Cancer, Neurodegenerative Diseases, and Aging: Is VDAC1 a Common Target?. Frontiers in Physiology, 2021, 12, 730048.	2.8	22

#	Article	IF	Citations
73	The Mitochondrial Protein VDAC1 at the Crossroads of Cancer Cell Metabolism: The Epigenetic Link. Cancers, 2020, 12, 1031.	3.7	21
74	VDAC1 in the diseased myocardium and the effect of VDAC1-interacting compound on atrial fibrosis induced by hyperaldosteronism. Scientific Reports, 2020, 10, 22101.	3.3	21
75	The effect of local anaesthetics on the ryanodine receptor/Ca2+ release channel of brain microsomal membranes. FEBS Letters, 1993, 328, 77-81.	2.8	19
76	Retina expresses a novel variant of the ryanodine receptor. European Journal of Neuroscience, 2007, 26, 3113-3125.	2.6	19
77	Purification of VDAC1 from Rat Liver Mitochondria. Cold Spring Harbor Protocols, 2014, 2014, pdb.prot073130.	0.3	19
78	Rewiring of Cancer Cell Metabolism by Mitochondrial VDAC1 Depletion Results in Time-Dependent Tumor Reprogramming: Glioblastoma as a Proof of Concept. Cells, 2019, 8, 1330.	4.1	18
79	Mitochondria and nucleus crossâ€talk: Signaling in metabolism, apoptosis, and differentiation, and function in cancer. IUBMB Life, 2021, 73, 492-510.	3.4	18
80	The VDAC1-based R-Tf-D-LP4 Peptide as a Potential Treatment for Diabetes Mellitus. Cells, 2020, 9, 481.	4.1	15
81	Novel ryanodine-binding properties in mammalian retina. International Journal of Biochemistry and Cell Biology, 2005, 37, 1681-1695.	2.8	14
82	Novel Biomarker Proteins in Chronic Lymphocytic Leukemia: Impact on Diagnosis, Prognosis and Treatment. PLoS ONE, 2016, 11, e0148500.	2.5	13
83	Hypoxic-induced truncation of voltage-dependent anion channel 1 is mediated by both asparagine endopeptidase and calpain 1 activities. Oncotarget, 2018, 9, 12825-12841.	1.8	12
84	Ryanodine receptor/calcium release channel conformations as reflected in the different effects of propranolol on its ryanodine binding and channel activity. Biochemical Journal, 1996, 315, 377-383.	3.7	11
85	VDAC1 Silencing in Cancer Cells Leads to Metabolic Reprogramming That Modulates Tumor Microenvironment. Cancers, 2021, 13, 2850.	3.7	9
86	Modification of ryanodine receptor/Ca2+ release channel with dinitrofluorobenzene. Biochemical Journal, 1999, 342, 239-248.	3.7	7
87	Reconstitution of Purified VDAC1 into a Lipid Bilayer and Recording of Channel Conductance. Cold Spring Harbor Protocols, 2014, 2014, pdb.prot073148.	0.3	7
88	Empty mesoporous silica particles significantly delay disease progression and extend survival in a mouse model of ALS. Scientific Reports, 2020, 10, 20675.	3.3	7
89	Silencing VDAC1 to Treat Mesothelioma Cancer: Tumor Reprograming and Altering Tumor Hallmarks. Biomolecules, 2022, 12, 895.	4.0	7
90	SMAC/Diablo controls proliferation of cancer cells by regulating phosphatidylethanolamine synthesis. Molecular Oncology, 2021, 15, 3037-3061.	4.6	6

#	Article	IF	Citations
91	Editorial: Uncovering the Function of the Mitochondrial Protein VDAC in Health and Disease: From Structure-Function to Novel Therapeutic Strategies. Frontiers in Oncology, 2017, 7, 320.	2.8	5
92	Characterization of sheep brain ryanodine receptor ATP binding site by photoaffinity labeling. FEBS Letters, 1999, 455, 251-256.	2.8	3
93	Chemical Modification of Ryanodine Receptor/Ca²⁺ Release Channel activity. , 1998, , 203-226.		1