

Tomoaki Shirao

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9251340/publications.pdf>

Version: 2024-02-01

124
papers

7,074
citations

61857

43
h-index

60497

81
g-index

127
all docs

127
docs citations

127
times ranked

5062
citing authors

#	ARTICLE	IF	CITATIONS
1	Drebrin-Dependent Actin Clustering in Dendritic Filopodia Governs Synaptic Targeting of Postsynaptic Density-95 and Dendritic Spine Morphogenesis. <i>Journal of Neuroscience</i> , 2003, 23, 6586-6595.	1.7	466
2	Change in the Shape of Dendritic Spines Caused by Overexpression of Drebrin in Cultured Cortical Neurons. <i>Journal of Neuroscience</i> , 1999, 19, 3918-3925.	1.7	445
3	Drebrin Is a Novel Connexin-43 Binding Partner that Links Gap Junctions to the Submembrane Cytoskeleton. <i>Current Biology</i> , 2004, 14, 650-658.	1.8	439
4	Interactions of Drebrin and Gephyrin with Profilin. <i>Biochemical and Biophysical Research Communications</i> , 1998, 243, 86-89.	1.0	393
5	Domain Analysis of the Actin-Binding and Actin-Remodeling Activities of Drebrin. <i>Experimental Cell Research</i> , 1999, 253, 673-680.	1.2	311
6	Effect of a neuron-specific actin-binding protein, drebrin A, on cell-substratum adhesion. <i>Neuroscience Letters</i> , 1995, 194, 197-200.	1.0	277
7	Role of actin cytoskeleton in dendritic spine morphogenesis. <i>Neurochemistry International</i> , 2007, 51, 92-104.	1.9	260
8	AMPA receptor downscaling at the onset of Alzheimer's disease pathology in double knockin mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 3410-3415.	3.3	208
9	Modulatory Role of Drebrin on the Cytoskeleton within Dendritic Spines in the Rat Cerebral Cortex. <i>Journal of Neuroscience</i> , 1996, 16, 7161-7170.	1.7	195
10	Disappearance of actin-binding protein, drebrin, from hippocampal synapses in alzheimer's disease. <i>Journal of Neuroscience Research</i> , 1996, 43, 87-92.	1.3	188
11	Loss of Proteins Regulating Synaptic Plasticity in Normal Aging of the Human Brain and in Alzheimer Disease. <i>Journal of Neuropathology and Experimental Neurology</i> , 1999, 58, 637-643.	0.9	176
12	Drebrin A is a postsynaptic protein that localizes in vivo to the submembranous surface of dendritic sites forming excitatory synapses. <i>Journal of Comparative Neurology</i> , 2005, 483, 383-402.	0.9	109
13	Inhibition by Drebrin of the Actin-Bundling Activity of Brain Fascin, a Protein Localized in Filopodia of Growth Cones. <i>Journal of Neurochemistry</i> , 1996, 66, 980-988.	2.1	102
14	Synaptic dysfunction and disruption of postsynaptic drebrin-actin complex: A study of neurological disorders accompanied by cognitive deficits. <i>Neuroscience Research</i> , 2007, 58, 1-5.	1.0	101
15	Immunochemical homology of 3 developmentally regulated brain proteins and their developmental change in neuronal distribution. <i>Developmental Brain Research</i> , 1986, 29, 233-244.	2.1	90
16	The Roles of Microfilament-Associated Proteins, Drebrins, in Brain Morphogenesis: A Review. <i>Journal of Biochemistry</i> , 1995, 117, 231-236.	0.9	88
17	Down-regulation of drebrin A expression suppresses synaptic targeting of NMDA receptors in developing hippocampal neurones. <i>Journal of Neurochemistry</i> , 2006, 97, 110-115.	2.1	85
18	Actin filaments and microtubules in dendritic spines. <i>Journal of Neurochemistry</i> , 2013, 126, 155-164.	2.1	85

#	ARTICLE	IF	CITATIONS
19	Drebrin A regulates dendritic spine plasticity and synaptic function in mature cultured hippocampal neurons. <i>Journal of Cell Science</i> , 2009, 122, 524-534.	1.2	84
20	Identification of a synaptic vesicle-specific 38,000-dalton protein by monoclonal antibodies. <i>Brain Research</i> , 1986, 375, 37-48.	1.1	83
21	Two Acidic Proteins Associated with Brain Development in Chick Embryo. <i>Journal of Neurochemistry</i> , 1985, 44, 1210-1216.	2.1	77
22	High level of adenosine A1 receptor-like immunoreactivity in the CA2/CA3a region of the adult rat hippocampus. <i>Neuroscience</i> , 1999, 93, 955-967.	1.1	74
23	Formation of Thick, Curving Bundles of Actin by Drebrin A Expressed in Fibroblasts. <i>Experimental Cell Research</i> , 1994, 215, 145-153.	1.2	72
24	Cloning of drebrin A and induction of neurite-like processes in drebrin-transfected cells. <i>NeuroReport</i> , 1992, 3, 109-112.	0.6	69
25	Clustering and anchoring mechanisms of molecular constituents of postsynaptic scaffolds in dendritic spines. <i>Neuroscience Research</i> , 2001, 40, 1-7.	1.0	69
26	Role of Cerebellar Cortical Protein Synthesis in Transfer of Memory Trace of Cerebellum-Dependent Motor Learning. <i>Journal of Neuroscience</i> , 2011, 31, 8958-8966.	1.7	69
27	Actin-Binding protein, drebrin, accumulates in submembranous regions in parallel with neuronal differentiation. <i>Journal of Neuroscience Research</i> , 1994, 38, 149-159.	1.3	63
28	Overexpression of drebrin A in immature neurons induces the accumulation of F-actin and PSD-95 into dendritic filopodia, and the formation of large abnormal protrusions. <i>Molecular and Cellular Neurosciences</i> , 2005, 30, 149-157.	1.0	63
29	Evidence for cell density affecting C2C12 myogenesis: possible regulation of myogenesis by cell-cell communication. <i>Muscle and Nerve</i> , 2011, 44, 968-977.	1.0	63
30	Drebrin E is involved in the regulation of axonal growth through actin-myosin interactions. <i>Journal of Neurochemistry</i> , 2009, 109, 611-622.	2.1	62
31	Activation of N-methyl-d-aspartate receptor induces a shift of drebrin distribution: Disappearance from dendritic spines and appearance in dendritic shafts. <i>Molecular and Cellular Neurosciences</i> , 2006, 31, 493-504.	1.0	58
32	The role of drebrin in dendritic spines. <i>Molecular and Cellular Neurosciences</i> , 2017, 84, 85-92.	1.0	58
33	Differential Expression of Rat Brain Synaptic Proteins in Development and Aging. <i>Biochemical and Biophysical Research Communications</i> , 1998, 251, 394-398.	1.0	57
34	Activity of the AMPA receptor regulates drebrin stabilization in dendritic spine morphogenesis. <i>Journal of Cell Science</i> , 2009, 122, 1211-1219.	1.2	57
35	Four synaptic vesicle-specific proteins: identification by monoclonal antibodies and distribution in the nervous tissue and the adrenal medulla. <i>Brain Research</i> , 1987, 404, 169-179.	1.1	56
36	The role of drebrin in neurons. <i>Journal of Neurochemistry</i> , 2017, 141, 819-834.	2.1	55

#	ARTICLE	IF	CITATIONS
37	Localization of a developmentally regulated neuron-specific protein S54 in dendrites as revealed by immunoelectron microscopy. <i>Brain Research</i> , 1987, 413, 374-378.	1.1	54
38	F-actin-binding protein drebrin regulates CXCR4 recruitment to the immune synapse. <i>Journal of Cell Science</i> , 2010, 123, 1160-1170.	1.2	54
39	Brain A β amyloidosis in APPsw mice induces accumulation of presenilin-1 and tau. <i>Journal of Pathology</i> , 2001, 194, 500-506.	2.1	51
40	Drebrin a knockout eliminates the rapid form of homeostatic synaptic plasticity at excitatory synapses of intact adult cerebral cortex. <i>Journal of Comparative Neurology</i> , 2009, 517, 105-121.	0.9	51
41	Phosphorylation of Drebrin by Cyclin-Dependent Kinase 5 and Its Role in Neuronal Migration. <i>PLoS ONE</i> , 2014, 9, e92291.	1.1	51
42	Molecular cloning of a developmentally regulated brain protein, chicken drebrin A and its expression by alternative splicing of the drebrin gene. <i>Molecular Brain Research</i> , 1993, 19, 101-114.	2.5	50
43	Drebrin restricts rotavirus entry by inhibiting dynamin-mediated endocytosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E3642-E3651.	3.3	49
44	Molecular cloning of a cDNA for the developmentally regulated brain protein, drebrin. <i>Molecular Brain Research</i> , 1988, 4, 71-74.	2.5	48
45	Myosin II ATPase Activity Mediates the Long-Term Potentiation-Induced Exodus of Stable F-Actin Bound by Drebrin A from Dendritic Spines. <i>PLoS ONE</i> , 2014, 9, e85367.	1.1	46
46	Many faces of drebrin: from building dendritic spines and stabilizing gap junctions to shaping neurite-like cell processes. <i>Histochemistry and Cell Biology</i> , 2007, 127, 355-361.	0.8	44
47	A novel role for drebrin in regulating progranulin bioactivity in bladder cancer. <i>Oncotarget</i> , 2015, 6, 10825-10839.	0.8	44
48	AMP-activated protein kinase counteracts brain-derived neurotrophic factor-induced mammalian target of rapamycin complex 1 signaling in neurons. <i>Journal of Neurochemistry</i> , 2013, 127, 66-77.	2.1	43
49	Increased levels of acidic calponin during dendritic spine plasticity after pilocarpine-induced seizures. <i>Hippocampus</i> , 2003, 13, 845-858.	0.9	42
50	Genetic disruption of the alternative splicing of drebrin gene impairs context-dependent fear learning in adulthood. <i>Neuroscience</i> , 2010, 165, 138-150.	1.1	42
51	Drebrin a content correlates with spine head size in the adult mouse cerebral cortex. <i>Journal of Comparative Neurology</i> , 2007, 503, 618-626.	0.9	37
52	Antisense knockdown of drebrin A, a dendritic spine protein, causes stronger preference, impaired pre-pulse inhibition, and an increased sensitivity to psychostimulant. <i>Neuroscience Research</i> , 2004, 49, 205-217.	1.0	35
53	Post-training cerebellar cortical activity plays an important role for consolidation of memory of cerebellum-dependent motor learning. <i>Neuroscience Letters</i> , 2011, 504, 53-56.	1.0	35
54	Three-dimensional distribution of Fos-positive neurons in the supramammillary nucleus of the rat exposed to novel environment. <i>Neuroscience Research</i> , 2009, 64, 397-402.	1.0	34

#	ARTICLE	IF	CITATIONS
55	Chemico-genetic identification of drebrin as a regulator of calcium responses. <i>International Journal of Biochemistry and Cell Biology</i> , 2010, 42, 337-345.	1.2	34
56	Drebrin A regulates hippocampal LTP and hippocampus-dependent fear learning in adult mice. <i>Neuroscience</i> , 2016, 324, 218-226.	1.1	34
57	Spikar, a novel drebrin-binding protein, regulates the formation and stabilization of dendritic spines. <i>Journal of Neurochemistry</i> , 2014, 128, 507-522.	2.1	33
58	Nucleotide sequences of two embryonic drebrins, developmentally regulated brain proteins, and developmental change in their mRNAs. <i>Molecular Brain Research</i> , 1988, 4, 207-215.	2.5	32
59	Stabilization of adhesion plaques by the expression of drebrin A in fibroblasts. <i>Developmental Brain Research</i> , 1996, 91, 227-236.	2.1	32
60	Molecular-Cloning of cDNA Encoding Human Drebrin E and Chromosomal Mapping of Its Gene. <i>Biochemical and Biophysical Research Communications</i> , 1993, 196, 468-472.	1.0	31
61	The effects of neurotrophin-3 and brain-derived neurotrophic factor on cerebellar granule cell movement and neurite extension in vitro. <i>Neuroscience</i> , 2000, 97, 727-734.	1.1	31
62	Suppression of an actin-binding protein, drebrin, by antisense transfection attenuates neurite outgrowth in neuroblastoma B104 cells. <i>Developmental Brain Research</i> , 1999, 114, 193-200.	2.1	30
63	Zebrafish <i>gcmb</i> is required for pharyngeal cartilage formation. <i>Mechanisms of Development</i> , 2004, 121, 1235-1247.	1.7	28
64	Two forms of drebrins, developmentally regulated brain proteins, in rat.. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 1989, 65, 169-172.	1.6	27
65	Non-muscle myosin IIB-like immunoreactivity is present at the drebrin-binding cytoskeleton in neurons. <i>Neuroscience Research</i> , 2000, 36, 167-173.	1.0	26
66	A Novel, Brain-Specific Mouse Drebrin: cDNA Cloning, Chromosomal Mapping, Genomic Structure, Expression, and Functional Characterization. <i>Genomics</i> , 2002, 79, 686-692.	1.3	25
67	In vivo, competitive blockade of N-methyl-d-aspartate receptors induces rapid changes in filamentous actin and drebrin A distributions within dendritic spines of adult rat cortex. <i>Neuroscience</i> , 2006, 140, 1177-1187.	1.1	25
68	Regulation of myotube formation by the actin-binding factor drebrin. <i>Skeletal Muscle</i> , 2011, 1, 36.	1.9	25
69	Rapid conversion of drebrin isoforms during synapse formation in primary culture of cortical neurons. <i>Developmental Brain Research</i> , 1998, 111, 137-141.	2.1	24
70	Expression of drebrin E in migrating neuroblasts in adult rat brain: Coincidence between drebrin E disappearance from cell body and cessation of migration. <i>Neuroscience</i> , 2008, 152, 670-682.	1.1	24
71	Histone deacetylase mediates the decrease in drebrin cluster density induced by amyloid beta oligomers. <i>Neurochemistry International</i> , 2014, 76, 114-121.	1.9	24
72	Lesions of nigrostriatal pathway reduce expression of tyrosine hydroxylase gene in residual dopaminergic neurons of substantia nigra. <i>Neuroscience Letters</i> , 1992, 141, 208-212.	1.0	23

#	ARTICLE	IF	CITATIONS
73	X Irradiation Changes Dendritic Spine Morphology and Density through Reduction of Cytoskeletal Proteins in Mature Neurons. <i>Radiation Research</i> , 2013, 179, 630-636.	0.7	23
74	Differential effects of x-irradiation on immature and mature hippocampal neurons in vitro. <i>Neuroscience Letters</i> , 2006, 399, 57-60.	1.0	22
75	Changes of drebrin expression in the visual cortex of the cat during development. <i>Neuroscience Research</i> , 1992, 13, 33-41.	1.0	21
76	Stability of the distribution of spines containing drebrin A in the sensory cortex layer I of mice expressing mutated APP and PS1 genes. <i>Brain Research</i> , 2005, 1064, 66-74.	1.1	21
77	Chemical and morphological alterations of spines within the hippocampus and entorhinal cortex precede the onset of Alzheimer's disease pathology in double knockâ€in mice. <i>Journal of Comparative Neurology</i> , 2007, 505, 352-362.	0.9	20
78	Nuclear Translocation of Calcium/Calmodulin-dependent Protein Kinase III β Promoted by Protein Phosphatase-1 Enhances Brain-derived Neurotrophic Factor Expression in Dopaminergic Neurons. <i>Journal of Biological Chemistry</i> , 2015, 290, 21663-21675.	1.6	19
79	General Introduction to Drebrin. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1006, 3-22.	0.8	19
80	Soy Isoflavones Accelerate Glial Cell Migration via GPER-Mediated Signal Transduction Pathway. <i>Frontiers in Endocrinology</i> , 2020, 11, 554941.	1.5	18
81	Expression of three drebrin isoforms in the developing nervous system. <i>Neuroscience Research Supplement: the Official Journal of the Japan Neuroscience Society</i> , 1990, 13, S106-S111.	0.0	17
82	Role of Drebrin in Synaptic Plasticity. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1006, 183-201.	0.8	17
83	Earlyâ€stage development of human induced pluripotent stem cellâ€derived neurons. <i>Journal of Neuroscience Research</i> , 2015, 93, 1804-1813.	1.3	16
84	Characterization of Functional Primary Cilia in Human Induced Pluripotent Stem Cell-Derived Neurons. <i>Neurochemical Research</i> , 2019, 44, 1736-1744.	1.6	16
85	Molecular cloning and dendritic localization of rat SH3P7. <i>European Journal of Neuroscience</i> , 2001, 14, 998-1008.	1.2	15
86	Properties of primary cilia in melanin-concentrating hormone receptor 1-bearing hippocampal neurons in vivo and in vitro. <i>Neurochemistry International</i> , 2021, 142, 104902.	1.9	15
87	X Irradiation Induces Acute Cognitive Decline via Transient Synaptic Dysfunction. <i>Radiation Research</i> , 2016, 185, 423-430.	0.7	14
88	Effect of Radiation on the Development of Immature Hippocampal Neurons In Vitro. <i>Radiation Research</i> , 2009, 172, 718-724.	0.7	13
89	Comparison of the radiosensitivities of neurons and glial cells derived from the same rat brain. <i>Experimental and Therapeutic Medicine</i> , 2014, 8, 754-758.	0.8	13
90	Allopregnanolone increases mature excitatory synapses along dendrites via protein kinase A signaling. <i>Neuroscience</i> , 2015, 305, 139-145.	1.1	13

#	ARTICLE	IF	CITATIONS
91	CaMKII β^2 is localized in dendritic spines as both drebrin α -dependent and drebrin α -independent pools. <i>Journal of Neurochemistry</i> , 2018, 146, 145-159.	2.1	13
92	Overexpression of drebrin A in immature neurons induces the accumulation of F-actin and PSD-95 into dendritic filopodia, and the formation of large abnormal protrusions. <i>Molecular and Cellular Neurosciences</i> , 2005, 30, 630-8.	1.0	13
93	The sulphhydryl reagent, N-ethylmaleimide, disrupts sleep and blocks A1 adenosine receptor-mediated inhibition of intracellular calcium signaling in the in vitro ventromedial preoptic nucleus. <i>Neuroscience</i> , 2001, 106, 733-743.	1.1	12
94	Identification, expression and characterization of rat isoforms of the serum response factor (SRF) coactivator MKL1. <i>FEBS Open Bio</i> , 2013, 3, 387-393.	1.0	12
95	Selective reduction of drebrin and actin in dendritic spines of hippocampal neurons by activation of 5-HT _{2A} receptors. <i>Neuroscience Letters</i> , 2013, 547, 76-81.	1.0	12
96	Low accumulation of drebrin at glutamatergic postsynaptic sites on GABAergic neurons. <i>Neuroscience</i> , 2010, 169, 1489-1500.	1.1	11
97	Ciliary GPCR α -based transcriptome as a key regulator of cilia length control. <i>FASEB BioAdvances</i> , 2021, 3, 744-767.	1.3	11
98	Inhibitory Role of Inducible cAMP Early Repressor (ICER) in Methamphetamine-Induced Locomotor Sensitization. <i>PLoS ONE</i> , 2011, 6, e21637.	1.1	11
99	Isoform-dependent Regulation of Drebrin Dynamics in Dendritic Spines. <i>Neuroscience</i> , 2018, 379, 67-76.	1.1	10
100	Postsynaptic structure formation of human iPS cell-derived neurons takes longer than presynaptic formation during neural differentiation in vitro. <i>Molecular Brain</i> , 2021, 14, 149.	1.3	10
101	K252a, a potent inhibitor of protein kinases, inhibits the migration of cerebellar granule cells in vitro. <i>Developmental Brain Research</i> , 1995, 90, 122-128.	2.1	9
102	Increase in AMPA receptor-mediated miniature EPSC amplitude after chronic NMDA receptor blockade in cultured hippocampal neurons. <i>Neuroscience Letters</i> , 2007, 418, 4-8.	1.0	9
103	Cellular localization and dendritic function of rat isoforms of the SRF coactivator MKL1 in cortical neurons. <i>NeuroReport</i> , 2014, 25, 585-592.	0.6	9
104	Association between decreased serum TBIL concentration and immediate memory impairment in schizophrenia patients. <i>Scientific Reports</i> , 2019, 9, 1622.	1.6	9
105	Effectiveness of Carbon-ion Beams for Apoptosis Induction in Rat Primary Immature Hippocampal Neurons. <i>Journal of Radiation Research</i> , 2010, 51, 627-631.	0.8	8
106	Drebrin E regulates neuroblast proliferation and chain migration in the adult brain. <i>European Journal of Neuroscience</i> , 2017, 46, 2214-2228.	1.2	8
107	X-irradiation of developing hippocampal neurons causes changes in neuron population phenotypes, dendritic morphology and synaptic protein expression in surviving neurons at maturity. <i>Neuroscience Research</i> , 2020, 160, 11-24.	1.0	8
108	Homer, Spikar, and Other Drebrin-Binding Proteins in the Brain. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1006, 249-268.	0.8	7

#	ARTICLE	IF	CITATIONS
109	High-content imaging analysis for detecting the loss of drebrin clusters along dendrites in cultured hippocampal neurons. <i>Journal of Pharmacological and Toxicological Methods</i> , 2019, 99, 106607.	0.3	7
110	Assessment of NMDA receptor inhibition of phencyclidine analogues using a high-throughput drebrin immunocytochemical assay. <i>Journal of Pharmacological and Toxicological Methods</i> , 2019, 99, 106583.	0.3	7
111	Drebrin expression is increased in spinal motoneurons of rats after axotomy. <i>Neuroscience Letters</i> , 2001, 311, 165-168.	1.0	6
112	PKN1 promotes synapse maturation by inhibiting mGluR-dependent silencing through neuronal glutamate transporter activation. <i>Communications Biology</i> , 2020, 3, 710.	2.0	6
113	Genetic Knockout of the Serotonin Reuptake Transporter Results in the Reduction of Dendritic Spines in In vitro Rat Cortical Neuronal Culture. <i>Journal of Molecular Neuroscience</i> , 2021, 71, 2210-2218.	1.1	6
114	An inhibitory pathway controlling the gating mechanism of the mouse lateral amygdala revealed by voltage-sensitive dye imaging. <i>Neuroscience Letters</i> , 2015, 590, 126-131.	1.0	5
115	Drebrin expression patterns in patients with refractory temporal lobe epilepsy and hippocampal sclerosis. <i>Epilepsia</i> , 2020, 61, 1581-1594.	2.6	5
116	Drebrin Isoforms Critically Regulate NMDAR- and mGluR-Dependent LTD Induction. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 330.	1.8	4
117	N-methyl-D-aspartate Receptor Mediates X-irradiation-induced Drebrin Decrease in Hippocampus. <i>Kitakanto Medical Journal</i> , 2018, 68, 111-115.	0.0	3
118	Lesions of the Supramammillary Nucleus Decrease Self-Grooming Behavior of Rats Placed in an Open Field. <i>Kitakanto Medical Journal</i> , 2011, 61, 287-292.	0.0	2
119	The Role of Drebrin-Binding Stable Actin Filaments in Dendritic Spine Morphogenesis. , 2015, , 363-371.		2
120	NMDA receptor-dependent and -independent effects of natural compounds and crude drugs on synaptic states as revealed by drebrin imaging analysis. <i>European Journal of Neuroscience</i> , 2021, 53, 3548-3560.	1.2	1
121	A Study of Processes Formation from Drebrin cDNA Transfected Fibroblast Cells.. <i>Kitakanto Medical Journal</i> , 1998, 48, 343-350.	0.0	1
122	Effect of N-(N-(L-trans-3-carboxyoxirane-2-carbonyl)-L-leucyl)-3-methyl-butylamine (E64C), a thiol-protease inhibitor, on tyrosine release from skeletal muscle cells.. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 1987, 63, 376-380.	1.6	0
123	Process of Neurite Formation and Genetic Engineering. <i>Journal of Neural Transplantation & Plasticity</i> , 1992, 3, 287-287.	0.7	0
124	Localization of Drebrin: Light Microscopy Study. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1006, 105-118.	0.8	0