Resting-State Structure and Gating Mechanism of a Vol

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Citation Report

#	Article	IF	CITATIONS
1	Voltage Sensing Comes to Rest. Cell, 2019, 178, 776-778.	13.5	2
2	Quantum Calculation of Proton and Other Charge Transfer Steps in Voltage Sensing in the Kv1.2 Channel. Journal of Physical Chemistry B, 2019, 123, 7984-7998.	1.2	12
3	The Sodium Channel Voltage Sensor Slides to Rest. Trends in Pharmacological Sciences, 2019, 40, 718-720.	4.0	1
4	Myotonia in a patient with a mutation in an S4 arginine residue associated with hypokalaemic periodic paralysis and a concomitant synonymous CLCN1 mutation. Scientific Reports, 2019, 9, 17560.	1.6	13
5	Voltage Sensor Movements during Hyperpolarization in the HCN Channel. Cell, 2019, 179, 1582-1589.e7.	13.5	89
6	Structure and Pharmacology of Voltage-Gated Sodium and Calcium Channels. Annual Review of Pharmacology and Toxicology, 2020, 60, 133-154.	4.2	160
7	Introduction to the Theme "lon Channels and Neuropharmacology: From the Past to the Futureâ€. Annual Review of Pharmacology and Toxicology, 2020, 60, 1-6.	4.2	13
8	Voltage-dependent gating in K channels: experimental results and quantitative models. Pflugers Archiv European Journal of Physiology, 2020, 472, 27-47.	1.3	14
9	Structure of the Cardiac Sodium Channel. Cell, 2020, 180, 122-134.e10.	13.5	217
10	Coupling stabilizers open K _V 1-type potassium channels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27016-27021.	3.3	7
11	ConoMode, a database for conopeptide binding modes. Database: the Journal of Biological Databases and Curation, 2020, 2020, .	1.4	2
12	Structure and regulation of the BsYetJ calcium channel in lipid nanodiscs. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30126-30134.	3.3	14
13	The conformational cycle of a prototypical voltage-gated sodium channel. Nature Chemical Biology, 2020, 16, 1314-1320.	3.9	33
14	The current chemical biology tool box for studying ion channels. Journal of Physiology, 2020, 598, 4455-4471.	1.3	15
15	Neurobiological activity of conotoxins via sodium channel modulation. Toxicon, 2020, 187, 47-56.	0.8	6
16	Gating Properties of Mutant Sodium Channels and Responses to Sodium Current Inhibitors Predict Mexiletine-Sensitive Mutations of Long QT Syndrome 3. Frontiers in Pharmacology, 2020, 11, 1182.	1.6	11
17	Insights into Cardiac IKs (KCNQ1/KCNE1) Channels Regulation. International Journal of Molecular Sciences, 2020, 21, 9440.	1.8	25
18	Structure of voltage-modulated sodium-selective NALCN-FAM155A channel complex. Nature Communications, 2020, 11, 6199.	5.8	12

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ARTICLE IF CITATIONS # A Potential Mechanism of Sodium Channel Mediating the General Anesthesia Induced by Propofol. 19 1.8 4 Frontiers in Cellular Neuroscience, 2020, 14, 593050. Structures Illuminate Cardiac Ion Channel Functions in Health and in Long QT Syndrome. Frontiers in 1.6 23 Pharmacology, 2020, 11, 550. Rare CACNA1A mutations leading to congenital ataxia. Pflugers Archiv European Journal of 21 1.3 18 Physiology, 2020, 472, 791-809. How a Scorpion Toxin Selectively Captures a Prey Sodium Channel: The Molecular and Evolutionary Basis Uncovered. Molecular Biology and Evolution, 2020, 37, 3149-3164. Roles for Countercharge in the Voltage Sensor Domain of Ion Channels. Frontiers in Pharmacology, 23 18 1.6 2020, 11, 160. Up-regulation of voltage-gated sodium channels by peptides mimicking S4-S5 linkers reveals a variation of the ligand-receptor mechanism. Scientific Reports, 2020, 10, 5852. 1.6 Distinguishing Potassium Channel Resting State Conformations in Live Cells with 25 1.7 7 Environment-Sensitive Fluorescence. ACS Chemical Neuroscience, 2020, 11, 2316-2326. De novo CACAN1D Ca2+ channelopathies: clinical phenotypes and molecular mechanism. Pflugers 1.3 26 36 Archiv European Journal of Physiology, 2020, 472, 755-773. Say Cheese: Structure of the Cardiac Electrical Engine Is Captured. Trends in Biochemical Sciences, 27 3.7 13 2020, 45, 369-371. The EAG Voltage-Dependent K+ Channel Subfamily: Similarities and Differences in Structural 1.6 24 Organization and Gating. Frontiers in Pharmacology, 2020, 11, 411. Direct and indirect cholesterol effects on membrane proteins with special focus on potassium 29 1.2 50 channels. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158706. Membrane Transport | The Ion Channel Protein Superfamily., 2021, 880-885. 30 Mutations in transmembrane proteins: diseases, evolutionary insights, prediction and comparison $\mathbf{31}$ 3.2 17 with globular proteins. Briefings in Bioinformatics, 2021, 22, . Structural Basis for High-Affinity Trapping of the NaV1.7 Channel in Its Resting State by Tarantula Toxin. Molecular Cell, 2021, 81, 38-48.e4. 4.5 Membrane Transport | Voltage-Gated Sodium Channels: Structure, Function, and Pathophysiology., 33 0 2021, , 899-908. Phosphorylation of a chronic pain mutation in the voltage-gated sodium channel Nav1.7 increases voltage sénsitivity. Journal of Biological Chemistry, 2021, 296, 100227. Structural basis for voltage-sensor trapping of the cardiac sodium channel by a deathstalker 35 5.8 54 scorpion toxin. Nature Communications, 2021, 12, 128. Membrane Transport | Voltage-Gated Ca2+ Channels., 2021, , 891-898.

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#	Article	IF	Citations
37	Long QT syndrome $\hat{a} \in $ Bench to bedside. Heart Rhythm O2, 2021, 2, 89-106.	0.6	10
38	Structural determinants of voltage-gating properties in calcium channels. ELife, 2021, 10, .	2.8	18
39	<i>CACNA1I</i> gain-of-function mutations differentially affect channel gating and cause neurodevelopmental disorders. Brain, 2021, 144, 2092-2106.	3.7	26
40	Pharmacological and nutritional targeting of voltage-gated sodium channels in the treatment of cancers. IScience, 2021, 24, 102270.	1.9	23
41	Current Advances in Covalent Stabilization of Macromolecular Complexes for Structural Biology. Bioconjugate Chemistry, 2021, 32, 879-890.	1.8	4
42	Cannabidiol and Sodium Channel Pharmacology: General Overview, Mechanism, and Clinical Implications. Neuroscientist, 2022, 28, 318-334.	2.6	23
43	Electromechanical coupling mechanism for activation and inactivation of an HCN channel. Nature Communications, 2021, 12, 2802.	5.8	17
45	Modelling of an autonomous Nav1.5 channel system as a part of in silico pharmacology study. Journal of Molecular Modeling, 2021, 27, 182.	0.8	3
46	Unique postâ€ŧranslational modifications diversify the sodium channels in peach aphid (Myzus persicae) Tj E	TQq0 0.0 rgE 1.7	BT /Qverlock 10
47	Mapping the interaction surface of scorpion β-toxins with an insect sodium channel. Biochemical Journal, 2021, 478, 2843-2869.	1.7	7
48	Regulation and drug modulation of a voltage-gated sodium channel: Pivotal role of the S4–S5 linker in activation and slow inactivation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	12
52	Mapping Electromechanical Coupling Pathways in Voltage-Gated Ion Channels: Challenges and the Way Forward. Journal of Molecular Biology, 2021, 433, 167104.	2.0	13
53	Structural Pharmacology of Voltage-Gated Sodium Channels. Journal of Molecular Biology, 2021, 433, 166967.	2.0	36
54	Conformations of voltage-sensing domain III differentially define NaV channel closed- and open-state inactivation. Journal of General Physiology, 2021, 153, .	0.9	7
55	Open-state structure and pore gating mechanism of the cardiac sodium channel. Cell, 2021, 184, 5151-5162.e11.	13.5	56
56	Structural snapshots of TRPV1 reveal mechanism of polymodal functionality. Cell, 2021, 184, 5138-5150.e12.	13.5	101
57	Ion-pair interactions between voltage-sensing domain IV and pore domain I regulate CaV1.1 gating. Biophysical Journal, 2021, 120, 4429-4441.	0.2	3
58	Sodium channelopathies of skeletal muscle and brain. Physiological Reviews, 2021, 101, 1633-1689.	13.1	55

#	Article	IF	Citations
60	Structural basis of cytoplasmic NaV1.5 and NaV1.4 regulation. Journal of General Physiology, 2021, 153, .	0.9	15
62	Cryo-EM structure of the KvAP channel reveals a non-domain-swapped voltage sensor topology. ELife, 2019, 8, .	2.8	17
63	Helix breaking transition in the S4 of HCN channel is critical for hyperpolarization-dependent gating. ELife, 2019, 8, .	2.8	49
64	Structure and physiological function of the human KCNQ1 channel voltage sensor intermediate state. ELife, 2020, 9, .	2.8	36
65	Cryo-EM structure of the calcium release-activated calcium channel Orai in an open conformation. ELife, 2020, 9, .	2.8	36
66	Binding Sites and the Mechanism of Action of Propofol and a Photoreactive Analogue in Prokaryotic Voltage-Gated Sodium Channels. ACS Chemical Neuroscience, 2021, 12, 3898-3914.	1.7	3
68	Sodium Channels. , 2020, , 120-141.		8
69	Voltage-Gated Sodium and Calcium Channels. , 2020, , 1-17.		1
70	Closed-state inactivation and pore-blocker modulation mechanisms of human CaV2.2. Cell Reports, 2021, 37, 109931.	2.9	35
71	Intersegment Contacts of Potentially Damaging Variants of Cardiac Sodium Channel. Frontiers in Pharmacology, 2021, 12, 756415.	1.6	1
75	Pathogenic in-Frame Variants in SCN8A: Expanding the Genetic Landscape of SCN8A-Associated Disease. Frontiers in Pharmacology, 2021, 12, 748415.	1.6	1
76	Simulation on the Physical Process of Neural Electromagnetic Signal Generation Based on a Simple but Functional Bionic Na+ Channel. Chinese Physics B, O, , .	0.7	0
77	Tracking the movement of discrete gating charges in a voltage-gated potassium channel. ELife, 2021, 10,	2.8	5
78	Voltage-gating and cytosolic Ca ²⁺ activation mechanisms of <i>Arabidopsis</i> two-pore channel AtTPC1. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	19
81	Characterizing fenestration size in sodium channel subtypes and their accessibility to inhibitors. Biophysical Journal, 2022, 121, 193-206.	0.2	12
82	An open state of a voltage-gated sodium channel involving a π-helix and conserved pore-facing asparagine. Biophysical Journal, 2022, 121, 11-22.	0.2	8
84	P-Loop Channels: Experimental Structures, and Physics-Based and Neural Networks-Based Models. Membranes, 2022, 12, 229.	1.4	4
85	Molecular basis of multistep voltage activation in plant two-pore channel 1. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	12

ARTICLE IF CITATIONS # Structural dynamics determine voltage and pH gating in human voltage-gated proton channel. ELife, 2.8 9 86 2022, 11, . Structure and Function of Sodium Channel Nav1.3 in Neurological Disorders. Cellular and Molecular 87 1.7 Neurobiology, 2023, 43, 575-584. Structural basis for modulation of human NaV1.3 by clinical drug and selective antagonist. Nature 88 5.8 36 Communications, 2022, 13, 1286. Druggability of Voltage-Gated Sodium Channels—Exploring Old and New Drug Receptor Sites. Frontiers in Pharmacology, 2022, 13, 858348. Late sodium current: incomplete inactivation triggers seizures, myotonias, arrhythmias, and pain 91 1.3 14 syndromes. Journal of Physiology, 2022, 600, 2835-2851. Sodium Channels and Local Anestheticsâ€"Old Friends With New Perspectives. Frontiers in 1.6 Pharmacology, 2022, 13, 837088. The Role of Myelin in Malfunctions of Neuron Transmittance. SSRN Electronic Journal, 0, , . 98 0.4 0 Structural Advances in Voltage-Gated Sodium Channels. Frontiers in Pharmacology, 0, 13, . 1.6 14 The 70â€year search for the voltageâ€sensing mechanism of ion channels. Journal of Physiology, 2022, 600, 100 1.3 14 3227-3247. Activation and closed-state inactivation mechanisms of the human voltage-gated KV4 channel 4.5 complexes. Molecular Cell, 2022, 82, 2427-2442.e4. Interaction between S4 and the phosphatase domain mediates electrochemical coupling in voltage-sensing phosphatase (VSP). Proceedings of the National Academy of Sciences of the United 102 3.3 6 States of America, 2022, 119, . Cryo-EM structure of the human Kv3.1 channel reveals gating control by the cytoplasmic T1 domain. 5.8 Nature Communications, 2022, 13, . Molecular mechanism of the spider toxin le-LhTx-I acting on the bacterial voltage-gated sodium channel 105 1.6 0 NaChBac. Frontiers in Pharmacology, 0, 13, . In Silico Simulations and Functional Cell Studies Evidence Similar Potency and Distinct Binding of 2.8 Pacific and Caribbean Ciguatoxins. Exposure and Health, 2023, 15, 641-660. Mechanism of voltage gating in the voltage-sensing phosphatase Ci-VSP. Proceedings of the National 107 3.3 11 Academy of Sciences of the United States of America, 2022, 119, . Germline de novo variant F747S extends the phenotypic spectrum of<i>CACNA1D</i>Ca2+ channelopathies. Human Molecular Genetics, 2023, 32, 847-859. 1.4 109 The Role of Myelin in Malfunctions of Neuron Transmittance. Neuroscience, 2022, 505, 125-156. 1.1 0 Subunit Architecture and Atomic Structure of Voltage-Gated Ca2+ Channels., 2022, , 31-45.

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#	Article	IF	CITATIONS
111	Voltage-sensor movements in the Eag Kv channel under an applied electric field. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	25
113	Relationship among surface electric double layer of cardiomyocyte membrane and toxicology of digoxin and opening of ion channels. Scientific Reports, 2022, 12, .	1.6	1
114	Molecular Modeling of Cardiac Sodium Channel with Mexiletine. Membranes, 2022, 12, 1252.	1.4	2
115	An α–π transition in S6 shapes the conformational cycle of the bacterial sodium channel NavAb. Journal of General Physiology, 2023, 155, .	0.9	2
116	A gating lever and molecular logic gate that couple voltage and calcium sensor activation to opening in BK potassium channels. Science Advances, 2022, 8, .	4.7	7
118	Voltage sensor dynamics of a bacterial voltage-gated sodium channel NavAb reveal three conformational states. Journal of Biological Chemistry, 2023, 299, 102967.	1.6	1
119	Structure of human NaV1.6 channel reveals Na+ selectivity and pore blockade by 4,9-anhydro-tetrodotoxin. Nature Communications, 2023, 14, .	5.8	8
120	Design, synthesis, and mechanism of action of novel μ-conotoxin KIIIA analogues for inhibition of the voltage-gated sodium channel Nav1.7. Journal of Biological Chemistry, 2023, 299, 103068.	1.6	5
121	Structural basis for severe pain caused by mutations in the S4-S5 linkers of voltage-gated sodium channel Na _V 1.7. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	3
122	PI(4,5)P2 regulates the gating of NaV1.4 channels. Journal of General Physiology, 2023, 155, .	0.9	5
123	Domain- and state-specific shape of the electric field tunes voltage sensing in voltage-gated sodium channels. Biophysical Journal, 2023, 122, 1807-1821.	0.2	2