

Resource Summary Report

Generated by [RRID](#) on Aug 18, 2026

Cavb3

RRID:Addgene_26574

Type: Plasmid

Proper Citation

RRID:Addgene_26574

Plasmid Information

URL: <http://www.addgene.org/26574>

Proper Citation: RRID:Addgene_26574

Insert Name: calcium channel beta subunit-III

Organism: Rattus norvegicus

Bacterial Resistance: Ampicillin

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5000; Vector Backbone:pcDNA3.1/Zeo; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: Isolated from Rat brain.

Plasmid Name: Cavb3

Record Creation Time: 20220422T222119+0000

Record Last Update: 20260815T081254+0000

Ratings and Alerts

No rating or validation information has been found for Cavb3.

No alerts have been found for Cavb3.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 16 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Tan C, et al. (2022) Rebuilding essential active zone functions within a synapse. *Neuron*, 110(9), 1498.

Ojala KS, et al. (2021) A high-affinity, partial antagonist effect of 3,4-diaminopyridine mediates action potential broadening and enhancement of transmitter release at NMJs. *The Journal of biological chemistry*, 296, 100302.

Rodan LH, et al. (2021) Phenotypic expansion of CACNA1C-associated disorders to include isolated neurological manifestations. *Genetics in medicine : official journal of the American College of Medical Genetics*, 23(10), 1922.

Chen H, et al. (2020) Disruption of Cav1.2-mediated signaling is a pathway for ketamine-induced pathology. *Nature communications*, 11(1), 4328.

Heck J, et al. (2019) Transient Confinement of CaV2.1 Ca²⁺-Channel Splice Variants Shapes Synaptic Short-Term Plasticity. *Neuron*, 103(1), 66.

Yu S, et al. (2019) TAT-Modified α -Conotoxin MVIIA for Crossing the Blood-Brain Barrier. *Marine drugs*, 17(5).

Jiang X, et al. (2019) Both gain-of-function and loss-of-function de novo CACNA1A mutations cause severe developmental epileptic encephalopathies in the spectrum of Lennox-Gastaut syndrome. *Epilepsia*, 60(9), 1881.

Vierra NC, et al. (2019) Kv2.1 mediates spatial and functional coupling of L-type calcium channels and ryanodine receptors in mammalian neurons. *eLife*, 8.

Hristov K, et al. (2018) Expression of voltage-gated calcium channels augments cell susceptibility to membrane disruption by nanosecond pulsed electric field. *Biochimica et biophysica acta. Biomembranes*, 1860(11), 2175.

Seo BA, et al. (2018) Neuronal calcium channel α_1 subunit interacts with AMPA receptor, increasing its cell surface localisation. *Biochemical and biophysical research communications*, 498(3), 402.

Kamijo S, et al. (2018) A Critical Neurodevelopmental Role for L-Type Voltage-Gated Calcium Channels in Neurite Extension and Radial Migration. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 38(24), 5551.

Bellono NW, et al. (2017) Molecular basis of ancestral vertebrate electroreception. *Nature*, 543(7645), 391.

Garau G, et al. (2015) Heparin/heparan sulfates bind to and modulate neuronal L-type (Cav1.2) voltage-dependent Ca(2+) channels. *Experimental neurology*, 274(Pt B), 156.

Cameron KN, et al. (2015) Amphetamine activates calcium channels through dopamine transporter-mediated depolarization. *Cell calcium*, 58(5), 457.

Ruchala I, et al. (2014) Electrical coupling between the human serotonin transporter and voltage-gated Ca^{2+} channels. *Cell calcium*, 56(1), 25.

Jiang YQ, et al. (2013) Spinal morphine but not ziconotide or gabapentin analgesia is affected by alternative splicing of voltage-gated calcium channel $\text{CaV}2.2$ pre-mRNA. *Molecular pain*, 9, 67.