

Resource Summary Report

Generated by [RRID](#) on Aug 27, 2026

CaV1.2

RRID:Addgene_26572

Type: Plasmid

Proper Citation

RRID:Addgene_26572

Plasmid Information

URL: <http://www.addgene.org/26572>

Proper Citation: RRID:Addgene_26572

Insert Name: Calcium channel, voltage-dependent, L type, alpha 1C subunit

Organism: Mus musculus

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:16267232](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5100; Vector Backbone:pcDNA6/V5-His; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: GenBank Accesssion number: AY728090

Plasmid Name: CaV1.2

Record Creation Time: 20220422T222119+0000

Record Last Update: 20260826T042059+0000

Ratings and Alerts

No rating or validation information has been found for CaV1.2.

No alerts have been found for CaV1.2.

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](#) .

López D, et al. (2026) Voltage-gated calcium channels as key regulators of neuronal differentiation in the immortalized dorsal root ganglion neuronal cell line F11. *Scientific reports*, 16(1).

Zhou X, et al. (2025) Inherent fast inactivation particle of Nav channels as a new binding site for a neurotoxin. *The EMBO journal*, 44(11), 3180.

Efremov AK, et al. (2022) Application of piconewton forces to individual filopodia reveals mechanosensory role of L-type Ca²⁺ channels. *Biomaterials*, 284, 121477.

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.

Dickerson MT, et al. (2020) Tetraspanin-7 regulation of L-type voltage-dependent calcium channels controls pancreatic β -cell insulin secretion. *The Journal of physiology*, 598(21), 4887.

Li B, et al. (2020) Ionomycin ameliorates hypophosphatasia via rescuing alkaline phosphatase deficiency-mediated L-type Ca²⁺ channel internalization in mesenchymal stem cells. *Bone research*, 8, 19.

Yang T, et al. (2020) L- and T-type calcium channels control aldosterone production from human adrenals. *The Journal of endocrinology*, 244(1), 237.

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

McArthur JR, et al. (2020) Spider Venom Peptide Pn3a Inhibition of Primary Afferent High Voltage-Activated Calcium Channels. *Frontiers in pharmacology*, 11, 633679.

Fei D, et al. (2019) Cav 1.2 regulates osteogenesis of bone marrow-derived mesenchymal stem cells via canonical Wnt pathway in age-related osteoporosis. *Aging cell*, 18(4), e12967.

Araki K, et al. (2019) TDP-43 regulates early-phase insulin secretion via CaV1.2-mediated exocytosis in islets. *The Journal of clinical investigation*, 129(9), 3578.

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.

McArthur JR, et al. (2018) Inhibition of human N- and T-type calcium channels by an ortho-phenoxyanilide derivative, MONIRO-1. *British journal of pharmacology*, 175(12), 2284.

Kim HH, et al. (2015) Costimulation of AMPA and metabotropic glutamate receptors underlies phospholipase C activation by glutamate in hippocampus. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 35(16), 6401.

Mortensen OV, et al. (2013) MKP3 eliminates depolarization-dependent neurotransmitter release through downregulation of L-type calcium channel Cav1.2 expression. *Cell calcium*, 53(3), 224.