

CACNA1C / Cav1.2 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS11142**Specification****CACNA1C / Cav1.2 Antibody (C-Terminus) - Product Information**

Application	IHC
Primary Accession	Q13936
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	249kDa KDa

CACNA1C / Cav1.2 Antibody (C-Terminus) - Additional Information**Gene ID** 775**Other Names**

Voltage-dependent L-type calcium channel subunit alpha-1C, Calcium channel, L type, alpha-1 polypeptide, isoform 1, cardiac muscle, Voltage-gated calcium channel subunit alpha Cav1.2, CACNA1C, CACH2, CACN2, CACNL1A1, CCHL1A1

Target/Specificity

Human CACNA1C / Cav1.2. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

CACNA1C / Cav1.2 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

CACNA1C / Cav1.2 Antibody (C-Terminus) - Protein Information**Name** CACNA1C**Synonyms** CACH2, CACN2, CACNL1A1, CCHL1A1**Function**

Pore-forming, alpha-1C subunit of the voltage-gated calcium channel that gives rise to L-type calcium currents (PubMed: [8392192](http://www.uniprot.org/citations/8392192), PubMed: [7737988](http://www.uniprot.org/citations/7737988), PubMed: [9087614](http://www.uniprot.org/citations/9087614), PubMed: [9013606](http://www.uniprot.org/citations/9013606), PubMed: [9607315](http://www.uniprot.org/citations/9607315), PubMed: [12176756](http://www.uniprot.org/citations/12176756), PubMed: [17071743](http://www.uniprot.org/citations/17071743))

target="_blank">17071743, PubMed:11741969, PubMed:8099908, PubMed:12181424, PubMed:29078335, PubMed:29742403, PubMed:16299511, PubMed:20953164, PubMed:15454078, PubMed:15863612, PubMed:17224476, PubMed:24728418, PubMed:26253506, PubMed:27218670, PubMed:23677916, PubMed:30023270, PubMed:30172029, PubMed:34163037). Mediates influx of calcium ions into the cytoplasm, and thereby triggers calcium release from the sarcoplasm (By similarity). Plays an important role in excitation-contraction coupling in the heart. Required for normal heart development and normal regulation of heart rhythm (PubMed:15454078, PubMed:15863612, PubMed:17224476, PubMed:24728418, PubMed:26253506). Required for normal contraction of smooth muscle cells in blood vessels and in the intestine. Essential for normal blood pressure regulation via its role in the contraction of arterial smooth muscle cells (PubMed:28119464). Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group (Probable).

Cellular Location

Cell membrane; Multi-pass membrane protein Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P15381}; Multi-pass membrane protein. Perikaryon {ECO:0000250|UniProtKB:P22002}. Postsynaptic density membrane {ECO:0000250|UniProtKB:P22002}. Cell projection, dendrite {ECO:0000250|UniProtKB:P22002}. Cell membrane, sarcolemma, T-tubule {ECO:0000250|UniProtKB:Q01815}. Note=Colocalizes with ryanodine receptors in distinct clusters at the junctional membrane, where the sarcolemma and the sarcoplasmic reticulum are in close contact. The interaction between RRAD and CACNB2 promotes the expression of CACNA1C at the cell membrane. {ECO:0000250|UniProtKB:P15381}

Tissue Location

Detected throughout the brain, including hippocampus, cerebellum and amygdala, throughout the heart and vascular system, including ductus arteriosus, in urinary bladder, and in retina and sclera in the eye (PubMed:15454078). Expressed in brain, heart, jejunum, ovary, pancreatic beta-cells and vascular smooth muscle Overall expression is reduced in atherosclerotic vascular smooth muscle.

Volume

50 µl

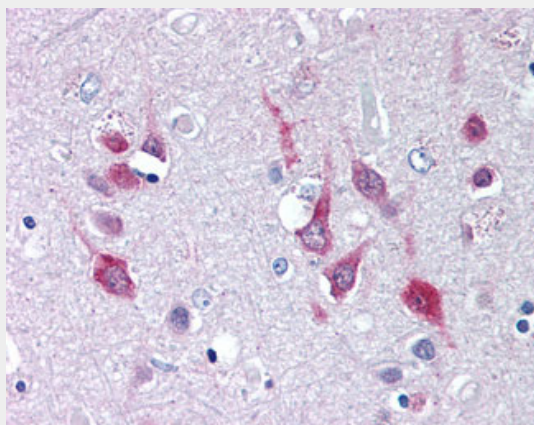
CACNA1C / Cav1.2 Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CACNA1C / Cav1.2 Antibody (C-Terminus) - Images



Anti-CACNA1C / Cav1.2 antibody ALS11142 IHC of human brain, cortex.

CACNA1C / Cav1.2 Antibody (C-Terminus) - Background

Voltage-sensitive calcium channels (VSCC) mediate the entry of calcium ions into excitable cells and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. The isoform alpha-1C gives rise to L-type calcium currents. Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group. They are blocked by dihydropyridines (DHP), phenylalkylamines, benzothiazepines, and by omega-agatoxin-III A (omega-Aga-III A). They are however insensitive to omega-conotoxin- GVIA (omega-CTx-GVIA) and omega-agatoxin-IVA (omega-Aga-IVA). Calcium channels containing the alpha-1C subunit play an important role in excitation-contraction coupling in the heart. The various isoforms display marked differences in the sensitivity to DHP compounds. Binding of calmodulin or CABP1 at the same regulatory sites results in an opposite effects on the channel function.

CACNA1C / Cav1.2 Antibody (C-Terminus) - References

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Soldatov N.M., et al. Genomics 22:77-87(1994).
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