

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9)
Mouse Monoclonal Antibody
Catalog # ALS13688**Specification**

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - Product Information

Application	IF, IHC
Primary Accession	Q01668
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	245kDa KDa

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - Additional Information**Gene ID** 776**Other Names**

Voltage-dependent L-type calcium channel subunit alpha-1D, Calcium channel, L type, alpha-1 polypeptide, isoform 2, Voltage-gated calcium channel subunit alpha Cav1.3, CACNA1D, CACH3, CACN4, CACNL1A2, CCHL1A2

Target/Specificity

Detects ~250 kD protein. No cross-reactivity against Cav1.2.

Reconstitution & Storage

Store at -20°C.

Precautions

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) is for research use only and not for use in diagnostic or therapeutic procedures.

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - Protein Information**Name** CACNA1D**Synonyms** CACH3, CACN4, CACNL1A2, CCHL1A2**Function**

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-1D 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, and by benzothiazepines.

Cellular Location

Membrane; Multi-pass membrane protein

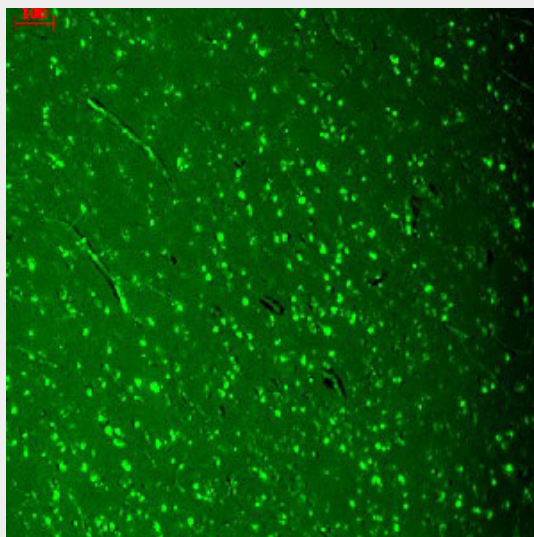
Tissue Location

Expressed in pancreatic islets and in brain, where it has been seen in cerebral cortex, hippocampus, basal ganglia, habenula and thalamus. Expressed in the small cell lung carcinoma cell line SCC-9. No expression in skeletal muscle

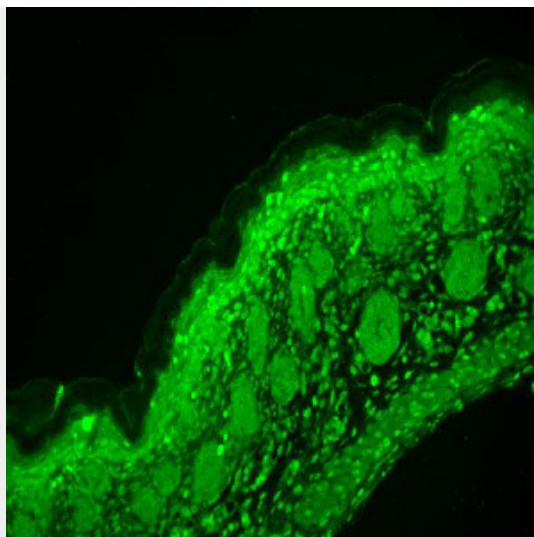
CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - Protocols

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

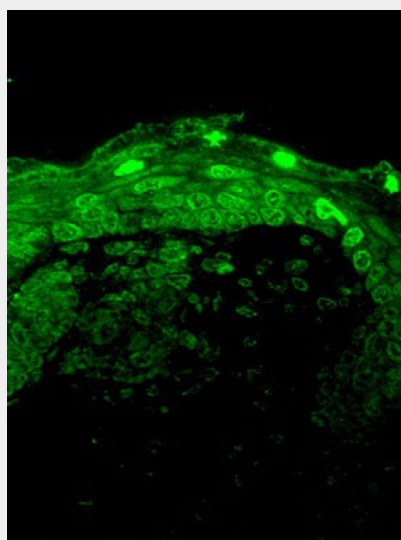
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - Images

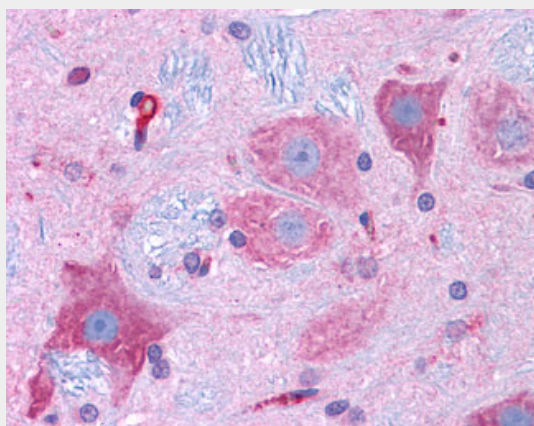
Cav1.3 (S48A-9), Human hippocampus.



Cav1.3 (S48A-9), Mouse back skin(2).



Cav1.3 (S48A-9), Mouse back skin.



Anti-CACNA1D / Cav1.3 antibody IHC of rat brain.

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - 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-1D 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-IIIa (omega-Aga-IIIa). They are however insensitive to omega-conotoxin-GVIA (omega-CTx-GVIA) and omega-agatoxin-IVA (omega-Aga-IVA).

CACNA1D / Cav1.3 Antibody (aa859-875, clone S48A-9) - References

Williams M.E., et al. *Neuron* 8:71-84(1992).
Seino S., et al. *Proc. Natl. Acad. Sci. U.S.A.* 89:584-588(1992).
Yamada Y., et al. *Genomics* 27:312-319(1995).
Singh A., et al. *J. Biol. Chem.* 283:20733-20744(2008).
Muzny D.M., et al. *Nature* 440:1194-1198(2006).