10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-CACNA2D1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1176a

Specification

Goat Anti-CACNA2D1 Antibody - Product Information

Application	**WB**
Primary Accession	P54289
Other Accession	NP_000713, 781, 12293 (mouse), 25399 (rat)
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**124568**

Goat Anti-CACNA2D1 Antibody - Additional Information

Gene ID 781

Other Names
Voltage-dependent calcium channel subunit alpha-2/delta-1, Voltage-gated calcium channel subunit alpha-2/delta-1, Voltage-dependent calcium channel subunit alpha-2-1, Voltage-dependent calcium channel subunit delta-1, CACNA2D1, CACNL2A, CCHL2A, MHS3

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-CACNA2D1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CACNA2D1 Antibody - Protein Information

Name CACNA2D1

Synonyms CACNL2A, CCHL2A, MHS3

Function
The alpha-2/delta subunit of voltage-dependent calcium channels regulates calcium current density and activation/inactivation kinetics of the calcium channel (PubMed:35293990). Plays an

important role in excitation-contraction coupling (By similarity).

Cellular Location
Membrane; Single-pass type I membrane protein. Cell membrane

Tissue Location
Isoform 1 is expressed in skeletal muscle. Isoform 2 is expressed in the central nervous system. Isoform 2, isoform 4 and isoform 5 are expressed in neuroblastoma cells. Isoform 3, isoform 4 and isoform 5 are expressed in the aorta.

Goat Anti-CACNA2D1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-CACNA2D1 Antibody - Images



AF1176a (0.03 µg/ml) staining of Human Brain (Cerebellum) lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-CACNA2D1 Antibody - Background

This gene encodes a member of the alpha-2/delta subunit family, a protein in the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization and consist of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. Research on a highly similar protein in rabbit suggests the protein described in this record is cleaved into alpha-2 and delta subunits. Alternate transcriptional splice variants of this gene have been observed but have not been thoroughly characterized.

Goat Anti-CACNA2D1 Antibody - References

Mutations in the Cardiac L-Type Calcium Channel Associated with Inherited J Wave Syndromes and Sudden Cardiac Death. Burashnikov E, et al. Heart Rhythm, 2010 Sep 2. PMID 20817017.

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Functional properties of the CaV1.2 calcium channel activated by calmodulin in the absence of alpha2delta subunits. Ravindran A, et al. Channels (Austin), 2009 Jan-Feb. PMID 19106618.
Proarrhythmic defects in Timothy syndrome require calmodulin kinase II. Thiel WH, et al. Circulation, 2008 Nov 25. PMID 19001023.