

**Goat Anti-CACNA2D1 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1176a****Specification**

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**Goat Anti-CACNA2D1 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P54289</a>
Other Accession	<a href="#">NP_000713</a> , <a href="#">781</a> , <a href="#">12293 (mouse)</a> , <a href="#">25399 (rat)</a>
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

**Dilution**

WB~~1:1000

E~~N/A

**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:<a href="http://www.uniprot.org/citations/35293990" target="\_blank">35293990</a>). 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 Cytometry](#)
- [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.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.

Coeliac disease-associated risk variants in TNFAIP3 and REL implicate altered NF-kappaB signalling. Trynka G, et al. Gut, 2009 Aug. PMID 19240061.

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.