

Goat Anti-CACNB4 (internal) Antibody
Peptide-affinity purified goat antibody
Catalog # AF1177b

Specification

Goat Anti-CACNB4 (internal) Antibody - Product Information

Application	WB
Primary Accession	O00305
Other Accession	NP_001005746 , 785 , 12298 (mouse) , 58942 (rat)
Reactivity	Human
Predicted Host	Mouse, Rat, Dog
Clonality	Goat
Concentration	Polyclonal
Isotype	100ug/200ul
Calculated MW	IgG 58169

Goat Anti-CACNB4 (internal) Antibody - Additional Information

Gene ID 785

Other Names

Voltage-dependent L-type calcium channel subunit beta-4, CAB4, Calcium channel voltage-dependent subunit beta 4, CACNB4, CACNLB4

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-CACNB4 (internal) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CACNB4 (internal) Antibody - Protein Information



AF1177b (0.2 µg/ml) staining of Human Bone Marrow lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-CACNB4 (internal) Antibody - Background

This gene encodes a member of the beta subunit family of voltage-dependent calcium channel complex proteins. 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. Various versions of each of these subunits exist, either expressed from similar genes or the result of alternative splicing. The protein encoded by this locus plays an important role in calcium channel function by modulating G protein inhibition, increasing peak calcium current, controlling the alpha-1 subunit membrane targeting and shifting the voltage dependence of activation and inactivation. Certain mutations in this gene have been associated with idiopathic generalized epilepsy (IGE) and juvenile myoclonic epilepsy (JME). Multiple transcript variants encoding different isoforms have been found for this gene.

Name CACNB4 ([HGNC:1404](#))

Synonyms CACNLB4

Function

The beta subunit of voltage-dependent calcium channels contributes to the function of the calcium channel by increasing peak calcium current, shifting the voltage dependencies of activation and inactivation, modulating G protein inhibition and controlling the alpha-1 subunit membrane targeting.

Tissue Location

Expressed predominantly in the cerebellum and kidney

Goat Anti-CACNB4 (internal) 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-CACNB4 (internal) Antibody - References

Replication of previous genome-wide association studies of bone mineral density in premenopausal American women. Ichikawa S, et al. J Bone Miner Res, 2010 Aug. PMID 20200978.

Identification of SH3 domain interaction partners of human FasL (CD178) by phage display screening. Voss M, et al. BMC Immunol, 2009 Oct 6. PMID 19807924.

A CACNB4 mutation shows that altered Ca(v)2.1 function may be a genetic modifier of severe myoclonic epilepsy in infancy. Ohmori I, et al. Neurobiol Dis, 2008 Dec. PMID 18755274.

[Physiological role of presynaptic Ca²⁺ channel complexes on neurotransmitter release] Kiyonaka S, et al. Seikagaku, 2008 Jul. PMID 18712068.

Episodic ataxia: SLC1A3 and CACNB4 do not explain the apparent genetic heterogeneity. Graves TD, et al. J Neurol, 2008 Jul. PMID 18446307.