



Rabbit Anti-CACNA1B (N type) antibody

SL10490R

Product Name:	CACNA1B (N type)
Chinese Name:	电压依赖型N型钙通道 α 1B抗体
Alias:	CAC1B_HUMAN; Voltage-dependent N-type calcium channel subunit alpha-1B; Brain calcium channel III; BIII; Calcium channel, L type, alpha-1 polypeptide isoform 5; Voltage-gated calcium channel subunit alpha Cav2.2; voltage-dependent N-type calcium channel subunit alpha-1B isoform 1; calcium channel, voltage-dependent, L type, alpha; 1B subunit; voltage-dependent N-type calcium channel subunit alpha-1B; calcium channel, N type; calcium channel, voltage-dependent, alpha 1B subunit, N type; calcium channel alpha12.2 subunit; Cav2.2 voltage-gated Ca ²⁺ channel.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	257kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CACNA1B (N type) :101-200/2339<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

The protein encoded by this gene is the pore-forming subunit of an N-type voltage-dependent calcium channel, which controls neurotransmitter release from neurons. The encoded protein forms a complex with alpha-2, beta, and delta subunits to form the high-voltage activated channel. This channel is sensitive to omega-conotoxin-GVIA and omega-agatoxin-IIIa but insensitive to dihydropyridines. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2011].

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-1B gives rise to N-type calcium currents. N-type calcium channels belong to the 'high-voltage activated' (HVA) group and are blocked by omega-conotoxin-GVIA (omega-CTx-GVIA) and by omega-agatoxin-IIIa (omega-Aga-IIIa). They are however insensitive to dihydropyridines (DHP), and omega-agatoxin-IVA (omega-Aga-IVA). Calcium channels containing alpha-1B subunit may play a role in directed migration of immature neurons.

Subunit:

Multisubunit complex consisting of alpha-1, alpha-2, beta and delta subunits in a 1:1:1:1 ratio. The channel activity is directed by the pore-forming and voltage-sensitive alpha-1 subunit. In many cases, this subunit is sufficient to generate voltage-sensitive calcium channel activity. The auxiliary subunits beta and alpha-2/delta linked by a disulfide bridge regulate the channel activity. Interacts with RIMS1 and RIMBP2.

Subcellular Location:

Membrane; Multi-pass membrane protein.

Tissue Specificity:

Isoform Alpha-1b-1 and isoform Alpha-1b-2 are expressed in the central nervous system, but not in skeletal muscle or aorta.

Post-translational modifications:

Phosphorylated in vitro by CaM-kinase II, PKA, PKC and CGPK.

Similarity:

Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family. CACNA1B subfamily.
Contains 1 EF-hand domain.

SWISS:

Q00975

Gene ID:

774

Product Detail:

Database links:

[Entrez Gene: 774](#)Human

[Entrez Gene: 257648](#)Rat

[Oimim: 601012](#)Human

[SwissProt: Q00975](#)Human

[SwissProt: Q05152](#)Rabbit

[SwissProt: Q02294](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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