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[Marker Primary Antibody]

Rabbit Anti-CACNA1B (N type) /APC Conjugated antibody

Catalog Number: SL10490R-APC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-CACNA1B (N type) /APC
Immunogen:	KLH conjugated synthetic peptide derived from human CACNA1B (N type)
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
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 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human(predicted:Mouse,Rat)
Background:	background: 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

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	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. **Database links:** UniProtKB/Swiss-Prot: Q00975 Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.