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Rabbit Anti-CACNA1B (N type) /Cy5 Conjugated antibody

SL10490R-Cy5

Product Name	Anti-CACNA1B (N type) /Cy5
Chinese Name	Cy5 标记的电压依赖型 N 型钙通道 α1B 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 Ca2+ channel.
Research Area	
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human(predicted:Mouse,Rat)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	257kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human CACNA1B (N type)
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% 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 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Product Detail

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 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.

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Database links:
UniProtKB/Swiss-Prot: Q00975

Important Note:
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