

Cav2.2 Rabbit pAb

CatalogNo: YN5641

Key Features

Host Species

- Rabbit

Reactivity

- Human,Rat,Mouse

Applications

- IHC,IF

MW

- 263kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

IHC 1:50-100

IF 1:50-200

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthetic Peptide of Cav2.2 AA range: 230-310

Specificity Cav2.2 protein(A205) detects endogenous levels of Cav2.2

Target Information

Gene name CACNA1B

Protein Name 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)

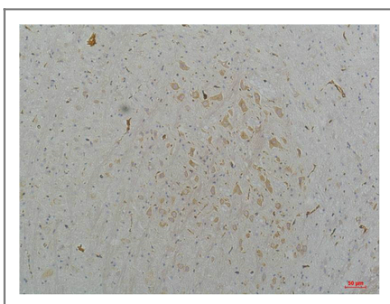
Organism	Gene ID	UniProt ID
Human	774;	Q00975;
Mouse		O55017;
Rat		Q02294;

Cellular Localization 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. Expressed in the cerebral white matter, cortex, hippocampus, basal ganglia, and cerebellum (PubMed:30982612).

Function Domain:Each of the four internal repeats contains five hydrophobic transmembrane segments (S1, S2, S3, S5, S6) and one positively charged transmembrane segment (S4). S4 segments probably represent the voltage-sensor and are characterized by a series of positively charged amino acids at every third position.,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.,PTM: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.,similarity:Contains 1 EF-hand domain.,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.,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.,

Validation Data



Immunohistochemical analysis of paraffin-embedded Mouse Brain Tissue using Cav2.2Rabbit pAb diluted at 1:200.

| Contact information

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