

Cav2.2 Rabbit pAb

CatalogNo: YN5641

Key Features

Host Species

Rabbit

Reactivity

· Human, Mouse, Rat

Applications
• IHC,IF

MW

263kD (Observed)

IsotypeIgG

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	<u>774</u> ;	<u>Q00975</u> ;
Mouse		<u>055017;</u>
Rat		<u>Q02294;</u>

Cellular Localization

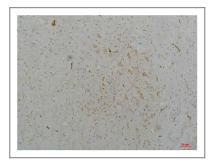
Membrane; Multi-pass membrane protein.

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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Cav2.2 Rabbit pAb

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