

Cav1.3 Polyclonal Antibody

Catalog No: YN5642

Reactivity: Human;Rat;Mouse

Applications: IHC;IF

Target: Cav1.3

Fields: >>MAPK signaling pathway;>>Calcium signaling pathway;>>cGMP-PKG

signaling pathway;>>cAMP signaling pathway;>>Cellular senescence;>>Cardiac muscle contraction;>>Adrenergic signaling in cardiomyocytes;>>Vascular smooth muscle contraction;>>Tight junction;>>Circadian entrainment;>>Retrograde

endocannabinoid signaling;>>Glutamatergic synapse;>>Cholinergic

synapse;>>Serotonergic synapse;>>GABAergic synapse;>>Dopaminergic synapse;>>Insulin secretion;>>GnRH signaling pathway;>>Oxytocin signaling pathway;>>Renin secretion;>>Aldosterone synthesis and secretion;>>Cortisol

synthesis and secretion;>>GnRH secretion;>>Type II diabetes

mellitus;>>Cushing syndrome;>>Growth hormone synthesis, secretion and action;>>Carbohydrate digestion and absorption;>>Alzheimer disease;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Amphetamine addiction;>>Chemical carcinogenesis - receptor activation;>>Hypertrophic cardiomyopathy;>>Arrhythmogenic right ventricular cardiomyopathy;>>Dilated

card

Gene Name: CACNA1D

Protein Name: Voltage-dependent L-type calcium channel subunit alpha-1D (Calcium channel,

L type, alpha-1 polypeptide, isoform 2) (Voltage-gated calcium channel subunit

alpha Cav1.3)

Human Gene Id: 776

Human Swiss Prot Q01668

No:

Mouse Swiss Prot Q99246

No:

Rat Swiss Prot No: P27732

Immunogen: Synthetic Peptide of Cav1.3 AA range: 1060-1140

1/3



Specificity: Cav1.3 protein(A202) detects endogenous levels of Cav1.3

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

Source: Polyclonal, Rabbit, IgG

Dilution : IHC 1:100-200. IF 1:50-200

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

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

Observed Band: 245kD

Cell Pathway: MAPK_ERK_Growth;MAPK_G_Protein;Calcium;Cardiac muscle

contraction; Vascular smooth muscle contraction; GnRH; Type II diabetes

mellitus; Alzheimer's disease; Hypertrophic cardiomyopathy

(HCM);Arrhythmogenic

Background: calcium voltage-gated channel subunit alpha1 D(CACNA1D) Homo sapiens

Voltage-dependent calcium channels 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, and gene expression. Calcium channels are multisubunit complexes composed of alpha-1, beta, alpha-2/delta, and gamma subunits. The channel activity is

alpha-1, beta, alpha-2/delta, and gamma subunits. The channel activity is directed by the pore-forming alpha-1 subunit, whereas the others act as auxiliary subunits regulating this activity. The distinctive properties of the calcium channel types are related primarily to the expression of a variety of alpha-1 isoforms, namely alpha-1A, B, C, D, E, and S. This gene encodes the alpha-1D subunit. Several transcript variants encoding different isoforms have been found for this

gene. [provided by RefSeq, Dec 2012],

Function: alternative products:Additional isoforms seem to exist,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-1D gives rise to L-type calcium currents. Long-lasting (L-type) calcium channels belong to the 'high-voltage activated' (HVA) group. They are blocked by dihydropyridines (DHP),

phenylalkylamines, benzothiazepines, an



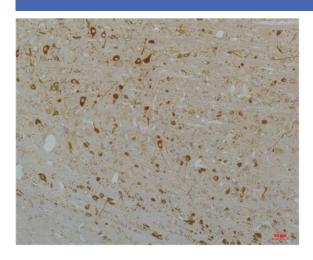
Subcellular Location :

Membrane; Multi-pass membrane protein.

Expression:

Expressed in pancreatic islets and in brain, where it has been seen in cerebral cortex, hippocampus, basal ganglia, habenula and thalamus. Expressed in the small cell lung carcinoma cell line SCC-9. No expression in skeletal muscle.

Products Images



Immunohistochemical analysis of paraffin-embedded Rat Brain Tissue using Cav1.3Rabbit pAb diluted at 1:200.