Best Tools for immunology Research

CaVα2δ2 Polyclonal Antibody

Catalog No :	YN5637
Reactivity :	Human;Rat;Mouse
Applications :	WB;IHC;IF
Target :	CaVα2δ2
Fields :	>>MAPK signaling pathway;>>Cardiac muscle contraction;>>Adrenergic signaling in cardiomyocytes;>>Oxytocin signaling pathway;>>Hypertrophic cardiomyopathy;>>Arrhythmogenic right ventricular cardiomyopathy;>>Dilated cardiomyopathy
Gene Name :	CACNA2D2
Protein Name :	Voltage-dependent calcium channel subunit alpha-2/delta-2 (Voltage-gated calcium channel subunit alpha-2/delta-2) [Cleaved into: Voltage-dependent calcium channel subunit alpha-2-2; Voltage-dependent
Human Gene Id :	9254
Human Swiss Prot No :	Q9NY47
Mouse Swiss Prot No :	Q6PHS9
Rat Swiss Prot No :	Q8CFG6
Immunogen :	Synthetic Peptide of CaVα2δ2 AA range: 540-620
Specificity :	The antibody detects endogenous CaVα2δ2 protein
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000.. 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 : 100-120kD

Cell Pathway : MAPK_ERK_Growth;MAPK_G_Protein;Cardiac muscle contraction;Hypertrophic cardiomyopathy (HCM);Arrhythmogenic right ventricular cardiomyopathy (ARVC);Dilated cardiomyopathy;

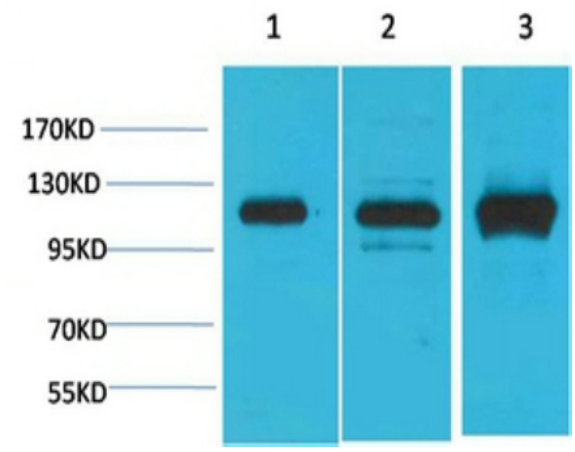
Background : calcium voltage-gated channel auxiliary subunit alpha2delta 2(CACNA2D2) Homo sapiens Calcium channels mediate the entry of calcium ions into the cell upon membrane polarization. This gene encodes the alpha-2/delta subunit of the voltage-dependent calcium channel complex. The complex consists of the main channel-forming subunit alpha-1, and auxiliary subunits alpha-2/delta, beta, and gamma. The auxiliary subunits function in the assembly and membrane localization of the complex, and modulate calcium currents and channel activation/inactivation kinetics. The subunit encoded by this gene undergoes post-translational cleavage to yield the extracellular alpha2 peptide and a membrane-anchored delta polypeptide. This subunit is a receptor for the antiepileptic drug, gabapentin. Mutations in this gene are associated with early infantile epileptic encephalopathy. Single nucleotide polymorphisms in this gene are correlated with increased sensitivity to

Function : domain:The MIDAS-like motif in the VWFA domain binds divalent metal cations and is required to promote trafficking of the alpha-1 (CACNA1) subunit to the plasma membrane by an integrin-like switch.,function:The alpha-2/delta subunit of voltage-dependent calcium channels regulates calcium current density and activation/inactivation kinetics of the calcium channel. Acts as a regulatory subunit for P/Q-type calcium channel (CACNA1A), N-type (CACNA1B), L-type (CACNA1C OR CACNA1D) and possibly T-type (CACNA1G). Overexpression induces apoptosis.,miscellaneous:Binds gabapentin, an antiepileptic drug.,PTM:May be proteolytically processed into subunits alpha-2-2 and delta-2 that are disulfide-linked. It is however unclear whether such cleavage really takes place in vivo and has a functional role.,PTM:N-glycosylated.,similarity:Belongs to the calcium channel subunit alpha-2/delta family.,similarit

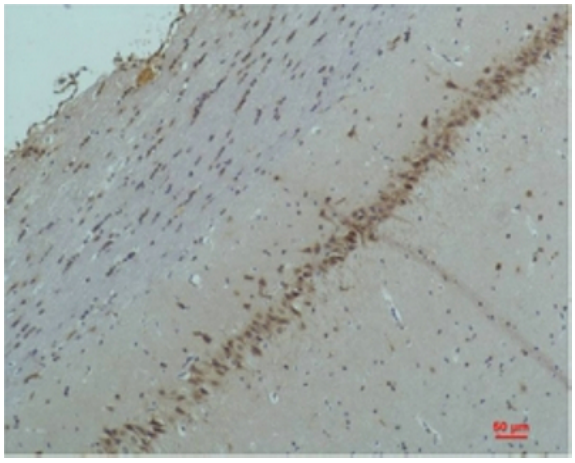
Subcellular Location : Membrane ; Single-pass type I membrane protein . Colocalizes with CACNA1A in lipid raft fractions. .

Expression : Predominantly present in cerebellar cortex. Present in various lung tumor cell lines, while it is absent in normal lung (at protein level). Highly expressed in heart, lung, testis, pancreas and skeletal muscle. Also expressed in kidney, liver, placenta and brain.

Products Images



Western blot analysis of 1)293T, 2)Mouse Brain Tissue, 3) Rat Brain Tissue with CaV α2δ2 Rabbit pAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Rat Brain Tissue using CaV α2δ2 Rabbit pAb diluted at 1:200.