CACNA1C mouse mAb

Catalog No	BYmab-16536
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB
Gene Name	CACNA1C CACH2 CACN2 CACNL1A1 CCHL1A1
Protein Name	CACNA1C
Immunogen	Synthesized peptide derived from human CACNA1C AA range: 1100-1180
Specificity	This antibody detects endogenous levels of Human,Rat,Mouse CACNA1C
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Voltage-dependent L-type calcium channel subunit alpha-1C (Calcium channel, L type, alpha-1 polypeptide, isoform 1, cardiac muscle;Voltage-gated calcium channel subunit alpha Cav1.2)
Observed Band	160-240kD
Cell Pathway	Cell membrane ; Multi-pass membrane protein . Cell membrane, sarcolemma ; Multi-pass membrane protein . Perikaryon . Cell junction, synapse, postsynaptic density membrane . Cell projection, dendrite . Cell membrane, sarcolemma, T-tubule . Colocalizes with ryanodine receptors in distinct clusters at the junctional membrane, where the sarcolemma and the sarcoplasmic reticulum are in close contact. The interaction between RRAD and CACNB2 promotes the expression of CACNA1C at the cell membrane. .
Tissue Specificity	Detected throughout the brain, including hippocampus, cerebellum and amygdala, throughout the heart and vascular system, including ductus arteriosus, in urinary bladder, and in retina and sclera in the eye (PubMed:15454078). Expressed in brain, heart, jejunum, ovary, pancreatic beta-cells and vascular smooth muscle. Overall expression is reduced in atherosclerotic vascular smooth muscle.

Function	alternative products:Additional isoforms seem to exist. Exons 8A, 21, 22, 31, 32, 33, 40B, 43A, 41A and 45 are alternatively spliced in a variety of combinations. Experimental confirmation may be lacking for some isoforms,disease:Defects in CACNA1C are the cause of Brugada syndrome type 3 (BRS3) [MIM:611875]. BRS3 is a heart disease characterized by the association of Brugada syndrome with shortened QT intervals. Brugada syndrome is a tachyarrhythmia characterized by right bundle branch block and ST segment elevation on an electrocardiogram (ECG). It can cause the ventricles to beat so fast that the blood is prevented from circulating efficiently in the body. When this situation occurs (called ventricular fibrillation), the individual will faint and may die in a few minutes if the heart is not reset.,disease:Defects in CACNA1C are the cause of Timothy syndrome (TS) [MIM:601005]. TS is a
Background	calcium voltage-gated channel subunit alpha1 C(CACNA1C) Homo sapiens This gene encodes an alpha-1 subunit of a voltage-dependent calcium channel. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization. The alpha-1 subunit consists of 24 transmembrane segments and forms the pore through which ions pass into the cell. The calcium channel consists of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. There are multiple isoforms of each of these proteins, either encoded by different genes or the result of alternative splicing of transcripts. The protein encoded by this gene binds to and is inhibited by dihydropyridine. Alternative splicing results in many transcript variants encoding different proteins. Some of the predicted proteins may not produce functional ion channel subunits. [provided by RefSeq, Oct 2012],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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