

Immunotag™ T-type Ca++ CP α1H Polyclonal Antibody

Antibody Specification	
Catalog No.	ITT4773
Product Description	Immunotag™ T-type Ca++ CP α1H Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	T-type Ca++ CP α1H
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from T-type Ca++ CP α1H, at AA range: 440-520
Specificity	T-type Ca++ CP α1H Polyclonal Antibody detects endogenous levels of T-type Ca++ CP α1H protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	CACNA1H
Accession No.	O95180 O88427 Q9EQ60
Alternate Names	CACNA1H; Voltage-dependent T-type calcium channel subunit alpha-1H; Low-voltage-activated calcium channel alpha1 3.2 subunit; Voltage-gated calcium channel subunit alpha Cav3.2

Antibody Specification

Description	calcium voltage-gated channel subunit alpha1 H(CACNA1H) Homo sapiens This gene encodes a T-type member of the alpha-1 subunit family, a protein in the voltage-dependent calcium channel complex. Calcium channels mediate the influx of calcium ions into the cell upon membrane polarization and consist of a complex of alpha-1, alpha-2/delta, beta, and gamma subunits in a 1:1:1:1 ratio. The alpha-1 subunit has 24 transmembrane segments and forms the pore through which ions pass into the cell. There are multiple isoforms of each of the proteins in the complex, either encoded by different genes or the result of alternative splicing of transcripts. Alternate transcriptional splice variants, encoding different isoforms, have been characterized for the gene described here. Studies suggest certain mutations in this gene lead to childhood absence epilepsy (CAE). [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	MAPK_ERK_Growth,MAPK_G_Protein,Calcium,
Protein Expression	Epithelium,Heart,Testis,Thyroid carcinoma,
Subcellular Localization	voltage-gated calcium channel complex,integral component of membrane,
Protein Function	disease:Defects in CACNA1H are a cause of susceptibility to idiopathic generalized epilepsy type 6 (IGE6) [MIM:611942]. IGE is characterized by recurring generalized seizures in the absence of detectable brain lesions and/or metabolic abnormalities. Generalized seizures arise diffusely and simultaneously from both hemispheres of the brain. IGE6 is a polygenic and multifactorial disease.,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-1H gives rise to T-type calcium currents. T-type calcium channels belong to the "low-voltage activated (LVA)" group and are strongly blocked by nickel and mibefradil. A particularity of this type of channels is an opening at quite negative potentials, and a voltage-dependent inactivation. T-type channels serve pacemaking functions in both central neurons and cardiac nodal cells and support calcium signaling in secretory cells and vascular smooth muscle. They may also be involved in the modulation of firing patterns of neurons which is important for information processing as well as in cell growth processes.,PTM:In response to raising of intracellular calcium, the T-type channels are activated by CaM-kinase II.,similarity:Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family.,tissue specificity:Expressed in kidney, liver, heart, brain. Isoform 2 seems to be testis-specific.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.