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CACNA1G + CACNA1H Rabbit pAb

Catalog # AP98823

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O43497
Other Accession	O43497
Reactivity	Rat, Human, Mouse
Predicted	Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	262472
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CACNA1G + CACNA1H
Epitope Specificity	311-420/2377
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the calcium channel alpha-1 subunit (TC 1.A.1.11) family. CACNA1G subfamily.
Post-translational modifications	In response to raising of intracellular calcium, the T-type channels are activated by CaM-kinase II.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Voltage-sensitive 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, gene expression, cell motility, cell division, and cell death. This gene encodes a T-type, low-voltage activated calcium channel. The T-type channels generate currents that are both transient, owing to fast inactivation, and tiny, owing to small conductance. T-type channels are thought to be involved in pacemaker activity, low-threshold calcium spikes, neuronal oscillations and resonance, and rebound burst firing. Many alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Sep 2011]

Additional Information

Gene ID	8913
Other Names	Ca(V)T.1; Cav3.1; NBR13; SCA42; SCA42ND; Cav3.1d; [a]1G; a1G; alpha-1G; mKIAA1123; CAC1G_HUMAN; CACNA1G; Cav3.1c; Voltage-gated calcium channel subunit alpha Cav3.1; KIAA1123; CAC1G_RAT; calcium voltage-gated channel subunit alpha1 G; calcium channel, voltage-dependent, T type, alpha 1G subunit
	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Dilution	
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CACNA1G
Synonyms	KIAA1123
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-1G gives rise to T-type calcium currents. T-type calcium channels belong to the 'low-voltage activated (LVA)' group and are strongly blocked by mibefradil. A particularity of this type of channel 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.
Cellular Location	Cell membrane; Multi-pass membrane protein. Cytoplasm
Tissue Location	Highly expressed in brain, in particular in the amygdala, subthalamic nuclei, cerebellum and thalamus. Moderate expression in heart; low expression in placenta, kidney and lung. Also expressed in colon and bone marrow and in tumoral cells to a lesser extent. Highly expressed in fetal brain, but also in peripheral fetal tissues as heart, kidney and lung, suggesting a developmentally regulated expression

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.