

Product Name: CAC1G Rabbit Polyclonal Antibody**Catalog #: APRab07814**

For research use only.

Summary

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|----------------------|---|
| Description | Rabbit polyclonal Antibody |
| Host | Rabbit |
| Application | IHC, ICC/IF |
| Reactivity | Human, Rat |
| Conjugation | Unconjugated |
| Modification | Unmodified |
| Isotype | IgG |
| Clonality | Polyclonal |
| Form | Liquid |
| Concentration | 1mg/ml |
| Storage | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| Shipping | Ice bags |
| Buffer | Liquid in PBS containing 50% glycerol, and 0.02% New type preservative N. |
| Purification | Affinity purification |

Application

| | |
|-------------------------|-----------------------------------|
| Dilution Ratio | IHC 1:50-1:300, ICC/IF 1:50-1:200 |
| Molecular Weight | 261kDa |

Antigen Information

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|--------------------------|---|
| Gene Name | CACNA1G |
| Alternative Names | KIAA1123 |
| Gene ID | 8913.0 |
| SwissProt ID | O43497 |
| Immunogen | Synthesized peptide derived from human protein . at AA range: 360-440 |

Background

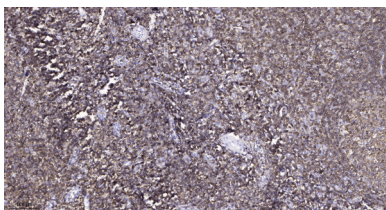
calcium voltage-gated channel subunit alpha1 G(CACNA1G) Homo sapiens Voltage-sensitive calcium channels mediate the entry of calcium ions into excitable cells, and are also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, 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],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.,domain:The linker region between repeat III and IV probably play a role in the inactivation of the channel. The C-terminal part may be implicated in the anchoring of the protein to the membrane, this by interfering/restricting its lateral diffusion.,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 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: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.,

Research Area

MAPK_ERK_Growth;MAPK_G_Protein;Calcium;Type II diabetes mellitus;

Image Data



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200 (4° overnight) . 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 45min) .