

Product datasheet for **AP05134PU-N**

CACNA1G Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western Blot: 5 - 10 µg/ml.
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide derived from the rat alpha1G calcium channel conjugated to KLH.
Specificity:	This antibody reacts to CACNA1G.
Formulation:	Phosphate buffered saline with 0.08% sodium azide State: Purified State: Liquid purified Ig
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	The antibody can be shipped at ambient temperature. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	calcium voltage-gated channel subunit alpha1 G
Database Link:	Entrez Gene 8913 Human O43497



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Background:

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 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. alpha(1G) is most likely responsible for burst firing in thalamic relay cells. These neurons burst during various thalamocortical oscillations including absence seizures the modulation of the intrinsic firing pattern mediated by alpha(1G) T-type Ca(2+) channels plays a critical role in the genesis of absence seizures in the thalamocortical pathway.

Synonyms:

KIAA1123, Cav3.1, Cav3.1c, NBR13