

Product datasheet for **AP05310PU-N**

Cacna1a Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western Blot: 1/400. <i>Positive Control:</i> Rat brain lysate.
Reactivity:	Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide derived from the rat alpha-1A Calcium Channel conjugated to KLH.
Specificity:	This antibody recognizes a1A Calcium Channel.
Formulation:	Phosphate Buffered Saline with 0.08% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography.
Conjugation:	Unconjugated
Storage:	Store the product (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	calcium voltage-gated channel subunit alpha1 A
Database Link:	Entrez Gene 25398 Rat P54282



[View online »](#)

Background:

Voltage-sensitive calcium channels (VSCCs) 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-1a gives rise to p and/or q-type calcium currents. P/q-type calcium channels belong to the 'high-voltage activated' (hva) group and are blocked by the funnel toxin (ftx) and by the omega-agatoxin-IVA (omega-aga-IVA). They are however insensitive to dihydropyridines (dhp), and omega-conotoxin-GVIA (omega-ctx-GVIA). Voltage-dependent calcium channels are multisubunit complexes, consisting of alpha-1, alpha-2, beta and delta subunits in a 1:1:1:1 ratio. The channel activity is directed by the pore-forming and voltage-sensitive alpha-1 subunit. In many cases, this subunit is sufficient to generate voltage-sensitive calcium channel activity. The auxiliary subunits beta and alpha-2/delta linked by a disulfide bridge regulate the channel activity.

Synonyms:

Cav2.1, Brain calcium channel I, CACH4, CACN3, CACNL1A4