

Product datasheet for **AP05141PU-N**

CACNG2 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 calcium channel gamma2 subunit conjugated to KLH
Specificity:	This antibody reacts to CACNG2.
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 auxiliary subunit gamma 2
Database Link:	Entrez Gene 10369 Human Q9Y698



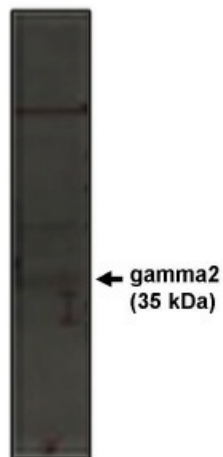
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Background:

Voltage-dependent calcium channels (VDCCs) are large (>400 kDa) heteromers which contain, minimally, three core subunits alpha1, alpha2/delta, beta in a 1:1:1 stoichiometry. Expression of VDCC gene products in *Xenopus* oocytes, or transfected cells shows that the alpha1 subunits contain the ion channel pore while the auxiliary alpha2/delta and beta subunits confer optimal cell surface expression and channel kinetics¹. Until recently, the only exception to the above paradigm was the skeletal muscle VDCC, which, in addition to the alpha1, alpha2/delta, beta core motif, also has an additional tightly associated integral membrane glycoprotein subunit termed gamma 1. Upon co-expression with the alpha1.1, alpha2/delta1, beta1a subunits of the skeletal muscle VDCC, gamma subunits alter the peak currents, and the kinetics of channel activation and inactivation with the overall effect being a normalisation of currents to those resembling the endogenous channel². Together, these results suggest that gamma subunits modulate skeletal muscle VDCCs by stabilising their conformation. The gamma 2 subunits, or stargazin, the product of a gene mutated in the stargazer mouse, is a homolog of the gamma 1 channel and is selectively expressed in the brain. It is considered to be a putative neuronal Ca²⁺ channel subtype mainly based on its homology to the gamma 1.

Synonyms:

TARP gamma-2

Product images:

Western blot analysis using gamma2 antibody on rat brain lysate.