

Product datasheet for **AP05143PU-N**

CACNG4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western Blot: 5- 10 µg/ml.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide derived from the rat calcium channel gamma4 subunit conjugated to KLH
Specificity:	This antibody reacts to CACNG4.
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 4
Database Link:	Entrez Gene 27092 Human Q9UBN1



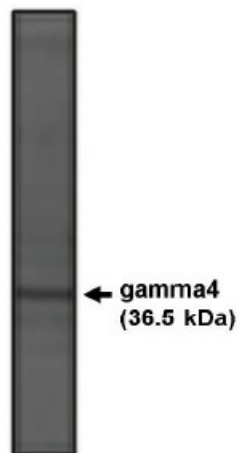
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Background:

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 kinetics. 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 channel. Together, these results suggest that gamma subunits modulate skeletal muscle VDCCs by stabilising their conformation. The gamma 4 subunit is specifically localized in the brain, with the gamma 2 and gamma 3 subunits. It shares >60% sequence homology with the gamma 2 and gamma 3 subunits and ~25% sequence homology with the gamma 1 and gamma 5 subunits.

Synonyms:

MGC11138; MGC24983

Product images:

Western blot analysis using gamma4 antibody on rat brain lysate.