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Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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g4 Calcium Channel. Rabbit Polyclonal Antibody

Neuronal voltage-gated calcium channel gamma-4 subunit; Transmembrane AMPAR regulatory protein gamma-4; Voltage-dependent calcium channel gamma-4 subunit

BACKGROUND

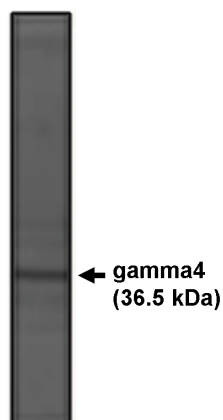
Voltage-dependent calcium channels (VDCCs) are large (>400 kDa) heteromers which contain, minimally, three core subunits α_1 , α_2/δ , β in a 1:1:1 stoichiometry¹. Expression of VDCC gene products in *Xenopus* oocytes, or transfected cells shows that the α_1 subunits contain the ion channel pore while the auxiliary α_2/δ and β 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 α_1 , α_2/δ , β core motif, also has an additional tightly associated integral membrane glycoprotein subunit termed γ^1 . Upon co-expression with the $\alpha_{1.1}$, α_2/δ_1 , β_{1a} subunits of the skeletal muscle VDCC, γ 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 γ subunits modulate skeletal muscle VDCCs by stabilising their conformation.

The γ_4 subunit is specifically localized in the brain, with the γ_2 and γ_3 subunits. It shares >60% sequence homology with the γ_2 and γ_3 subunits and ~25% sequence homology with the γ_1 and γ_5 subunits.

IMMUNOGEN

Synthetic peptide derived from the rat calcium channel gamma4 subunit conjugated to KLH

Western blot analysis using γ_4 antibody on rat brain lysate at 5 μ g/ml.



ORDERING INFORMATION

CATALOG NUMBER
X1520P

SIZE
100 μ g
FORM
Unconjugated

HOST/CLONE
Rabbit

FORMULATION
Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION
See vial for concentration

ISOTYPE
IgG

APPLICATIONS
Western Blot

SPECIES REACTIVITY
Human

ACCESSION NUMBER
Human Q9UBN1

POSITIVE CONTROL/TISSUE EXPRESSION

Rat brain lysate

COMMENTS

This antibody can be used for Western blotting at 5-10 $\mu\text{g/ml}$. Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Ammonium Sulfate Precipitation

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C . Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Hofmann F, et al. *Rev Physiol Biochem Pharmacol* 1999, 139:33-87
2. Singer D, et al. *Science* 1991, 253:1553-7
3. Letts VA, et al. *Nat Genet* 1998, 19:340-7
4. Kang, M.G., et al. *J. Biol. Chem.* 2001, 276: 32917-24
5. Sharp, A.H., et al. *Neuroscience* 2001, 105:599-617
6. Steinlein OK, Noebels JL *Curr Opin Genet Dev* 2000,10:286-91
7. Chen, L., et al. 'Stargazin regulates synaptic targeting of AMPA receptors by two distinct mechanisms.' *Nature* 2000, 408: 936-943.

PRODUCT SPECIFIC REFERENCES