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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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g3 Calcium Channel. Rabbit Polyclonal Antibody

Neuronal voltage-gated calcium channel gamma-3 subunit; Transmembrane AMPAR regulatory protein gamma-3; Voltage-dependent calcium channel gamma-3 subunit

BACKGROUND

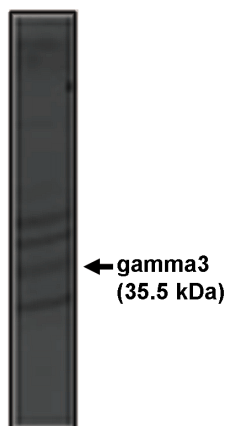
Voltage-dependent calcium channels (VDCCs) are large (>400 kDa) heteromers which contain, minimally, three core subunits α_1 , α_2/δ , β in a 1:1:1 stoichiometry¹. Expression of VDCC gene products in *Xenopus* oocytes, or transfected cells shows that the α_1 subunits contain the ion channel pore while 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_3 subunit is specifically localized in the brain, with the γ_2 and γ_4 subunits. It shares >60% sequence homology with the γ_2 and γ_4 subunits and ~25% sequence homology with the γ_1 and γ_5 subunits.

IMMUNOGEN

Synthetic peptide derived from the rat calcium channel gamma3 subunit conjugated to KLH

Western blot analysis using gamma3 antibody on rat brain lysate



ORDERING INFORMATION

CATALOG NUMBER
X1519P

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 O60359

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