

Product datasheet for **TA328962**

Kcnmb3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)HYDEEAIRTNPK, corresponding to amino acid residues 134- 145 of rat SloA ³ . Extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium calcium-activated channel subfamily M regulatory beta subunit 3
Database Link:	NP_001098030 Entrez Gene 100502876 Mouse Entrez Gene 310303 Rat A7VL23



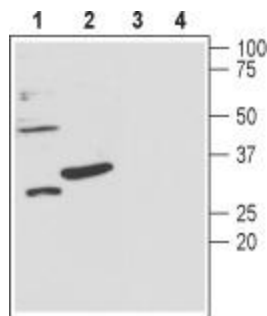
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Background:

Large-conductance, voltage- and Ca²⁺-activated K⁺ channels, also known as the BK channels, are widely expressed channels that couple changes in submembrane Ca²⁺ concentration to the regulation of electrical excitability¹. BK channels are formed from four α -subunits arising from the Slowpoke (Slo) gene product². In addition, in smooth muscle and cochlea, an accessory β -subunit can regulate BK channel gating profoundly. At present, four β subunits have been cloned in mammals. β Subunits alter the Ca²⁺ sensitivity and gating kinetics of BK channels, greatly contributing to BK channel diversity. On the other hand, they modify the BK channel pharmacological properties, changing toxin binding and acting as receptors for drugs. Regulatory β subunits share a putative membrane topology, with two transmembrane segments connected by a 120- residue extracellular loop and with NH₂ and COOH terminals oriented toward the cytoplasm⁴. Each β subunit has a tissue-specific expression and modulates channel function uniquely which provides a major mechanism for diverse BK channel phenotypes in various tissues. β 3 is highly expressed in kidney, heart, and brain⁵. The β 3 gene (KCNMB3) associates with Slo1 α subunits and regulate BK channel function. In humans, the β 3 gene contains four N-terminal alternative exons that produce four functionally distinct β 3 subunits, β 3a-d. Three variants, β 3a-c, exhibit kinetically distinct inactivation behaviors⁶. A mutation in the β 3 gene is linked to idiopathic epilepsy⁷.kinetically distinct inactivation behaviors. A mutation in the β 3 gene is linked to idiopathic epilepsy.

Synonyms:

BKBETA3; HBETA3; K(VCA)beta-3; KCNMB2; KCNMBL; Slo-beta-3; SLOBETA3

Product images:

Western blot analysis of mouse brain lysates (lanes 1 and 3) and rat pancreas membranes (lanes 2 and 4): 1-2. Anti-slo β 3 (KCNMB3) (extracellular) antibody, (1:1000). 3-4. Anti-slo β 3 (KCNMB3) (extracellular) antibody, preincubated with the control peptide antigen.