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Product datasheet for TA328925

Kcnj3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	GST fusion protein with sequence LQRISSVPGNSEEKLVSKT TKMLSDPMSQSVADLPPKLQKMAGGPTRMEGNLPAKLRKM NSDRFT, corresponding to residues 437-501 of mouse GIRK1, (MW: 34 kDa.).Â Intracellular, C-terminus.
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% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	The serum was depleted of anti-GST antibodies by affinity chromatography on immobilized GST, and then the antibody was affinity purified on immobilized GIRK1-GST.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium inwardly-rectifying channel, subfamily J, member 3
Database Link:	NP_032452 Entrez Gene 50599 RatEntrez Gene 16519 Mouse P63250

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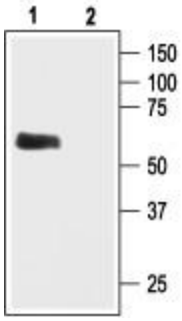
Background: Kir3.1 (or G-protein regulated Inward-Rectifier K+ channel, GIRK1) is a member of the family of inward rectifying K+ channels. The family includes 15 members that are structurally and functionally different from the voltage-dependent K+ channels. The family's topology consists of two transmembrane domains that flank a single and highly conserved pore region with intracellular N- and C-termini. As is the case for the voltage-dependent K+ channels the functional unit for the Kir channels is composed of four subunit that can assembly as either homo or heterotetramers. Kir channels are characterized by a K+ efflux that is limited by depolarizing membrane potentials thus making them essential for controlling resting membrane potential and K+ homeostasis. Kir3.1 is a member of the Kir3.x subfamily that includes four members (Kir3.1- Kir3.4). The Kir3 family is characterized by the fact that the channels can be activated by neurotransmitters and other factors acting via the activation of G-protein coupled receptors. Binding of the corresponding ligand to the G-protein receptor induces the dissociation of Gα-GTP from the Gβγ dimer. The latter directly binds to Kir3 and activates the channel. In the heart, Kir3.1 co-assembles with Kir3.4 to form the prototypical muscarinic-gated K+ channel KAch current, responsible for slowing the heart rate in response of parasympathetic stimulation. In the brain, Kir3.1 co-assembles with Kir3.2 and mediates the inhibitory effects of many neurotransmitters including opioid, adrenergic, muscarinic, dopaminergic and γ-aminobutyric acid (GABA). A peptide toxin originating from the Apis mellifera bee venom, Tertiapin (#STT-250) was shown to be a potent blocker of Kir3.1 containing channels (8.6 nM for the Kir3.1/3.4 combination and 5.4 nM for the Kir3.1/3.2).

Synonyms: GIRK1; KGA; KIR3.1

Product images:



Western blot analysis of rat brain membranes: 1. Anti-Kir3.1 (GIRK1) antibody, (1:200). 2. Anti-Kir3.1 (GIRK1) antibody, preincubated with the control antigen.