

## Product datasheet for **TA328926**

### Kcnj6 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	GST fusion protein with sequence ELANRAEVPLSWSVS SKLNQHAELETEEEEEKNPEELTERNG, corresponding to residues 374-414 of mouse Kir3.2, (MW: 31 kDa.). Intracellular, C-terminal part.
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 <sub>3</sub> .
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 Kir3.2-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 6
Database Link:	<a href="#">NP_034736</a> <a href="#">Entrez Gene 3763 Human</a> <a href="#">Entrez Gene 25743 Rat</a> <a href="#">Entrez Gene 16522 Mouse</a> <a href="#">P48542</a>



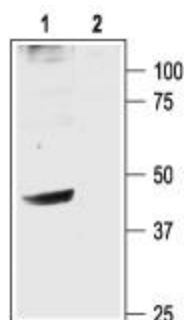
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**Background:**

Kir3.2 (or G-protein regulated Inward-Rectifier K<sup>+</sup> channel, GIRK2) is a member of the family of inward rectifying K<sup>+</sup> channels. The family includes 15 members that are structurally and functionally different from the voltage-dependent K<sup>+</sup> 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<sup>+</sup> 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<sup>+</sup> efflux that is limited by depolarizing membrane potentials thus making them essential for controlling resting membrane potential and K<sup>+</sup> homeostasis. Kir3.2 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. Kir3.2 is mainly expressed in the brain, where it co-assembles with Kir3.1 or Kir3.3 and mediates the inhibitory effects of many neurotransmitters including opioid, adrenergic, muscarinic, dopaminergic and γ-aminobutyric acid (GABA). Point mutations in the mouse Kir3.2 channel cause the weaver (wv) phenotype, a neurological abnormality characterized by the abnormal 'weaving' of the mice when they walk, hence the name weaver which is due to a substantial loss of cerebellar granule neurons. These mice also display mild local motor hyperactivity, presumably caused by the degeneration of dopaminergic neurons in the substantia nigra, spontaneous seizures and male sterility. A peptide toxin originating from the *Apis mellifera* bee venom, Tertiapin (#STT-250) was shown to be a potent blocker of Kir3.2 containing channels (7 nM for Kir3.2 alone and 5.4 nM for the Kir3.1/3.2 combination).

**Synonyms:**

BIR1; GIRK2; hiGIRK2; KATP-2; KATP2; KCNJ7; KIR3.2; MGC126596

**Product images:**


Western blot analysis of rat brain membranes: 1. Anti-Kir3.2 (GIRK2) antibody, (1:200). 2. Anti-Kir3.2 (GIRK2) antibody, preincubated with the control antigen.