

Product datasheet for **TA328976**

Kcnj16 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide HDVLEVKRKYYKVNC, corresponding to amino acid residues 311-325 of rat Kir5.1 . Intracellular, C-terminal.
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, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized peptide.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium voltage-gated channel subfamily J member 16
Database Link:	NP_445766 Entrez Gene 16517 Mouse Entrez Gene 29719 Rat



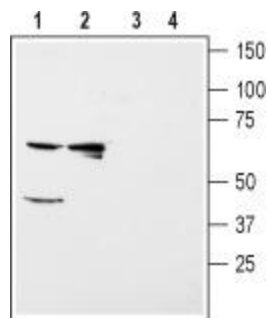
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Background:

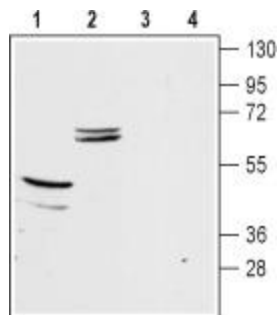
Kir5.1 is a member of the family of inward rectifying K⁺ channels. The family includes 15 members that are structurally and functionally different from the voltage-dependent K⁺ channels. The family's protein topology consists of two transmembrane domains that flank a single and highly conserved pore 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 subunits that can assemble as either homo or heteromers. 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. Kir5.1 can co-assemble with other Kir channels such as Kir2.1, Kir4.1 and Kir4.2. In fact, heteromeric Kir4.1/Kir5.1 form the basolateral small-conductance K⁺ channel in distal nephron segments that is responsible for generating the basolateral membrane potential that determines the magnitude and direction of K⁺ diffusion from cell to peritubular fluid in the nephron. The Kir5.1 homomeric channel was largely thought to be non-functional, although recent evidence demonstrates that Kir5.1 homomers can form functional channels when co-expressed with the anchor protein PSD-95 in the brain where it is abundantly expressed.

Synonyms:

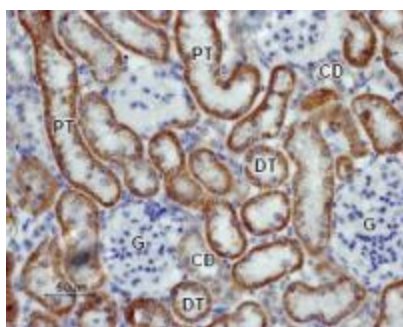
BIR9; KIR5.1; MGC33717

Product images:

Western blot analysis of rat kidney (lanes 1 and 3) and liver (lanes 2 and 4) membranes: 1, 2. Anti-Kir5.1 antibody, (1:200). 3, 4. Anti-Kir5.1 antibody, preincubated with the control peptide antigen.



Western blot analysis of mouse brain (lanes 1 and 3) and kidney (lanes 2 and 4) membranes: 1, 2. Anti-Kir5.1 antibody, (1:200). 3, 4. Anti-Kir5.1 antibody, preincubated with the control peptide antigen.



Expression of Kir5.1 in rat kidney. Immunohistochemical staining of paraffin embedded section of rat kidney using Anti-Kir5.1 antibody (1:100). Kir5.1 (brown staining) is expressed in both proximal tubules (PT) and distal tubules (DT) in the renal cortex. Note that collecting ducts (CD) are less stained while glomeruli (G) are negative. Hematoxylin is used as the counterstain.