

Product datasheet for **TA328985**

Kcng1 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 (C)RRKPSTGNSYLDK, corresponding to amino acid residues 325- 337 of mouse Kv6.1 . 2nd 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 voltage-gated channel, subfamily G, member 1
Database Link:	NP_001074603 Entrez Gene 296395 Rat Entrez Gene 241794 Mouse A2BDX4



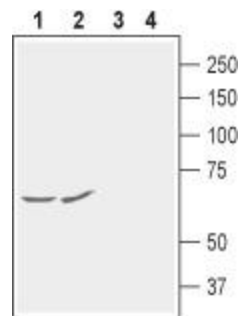
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Background:

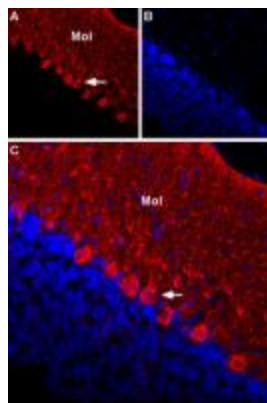
Voltage-gated K⁺ channels are transmembrane proteins consisting of four α -subunits arranged in a radially symmetric fashion around a central aqueous pore. Each α -subunit consists of six transmembrane segments (S1-S6) with cytoplasmic NH₂- and COOH-termini. In mammals, a large family of genes encodes α -subunits: KV1 (homologous to *Drosophila* Shaker), KV2 (Shab), KV3 (Shaw), KV4 (Shal), KV5, KV6, and KV91. The sparsely populated KV channel subfamilies KV5 and KV6 each contain one member, KV5.1 and KV6.1. KV6 channels are electrically silent and no functional role has been suggested for these channels³. A recent study found that KV6.1 forms functional channels specifically with KV2.1³. It was also found that KV2.1 and KV6.1 mRNAs colocalize to the piriform cortex, hippocampus, dentate gyrus and olfactory tubercle in the brain⁴ and to SA node, atria and ventricle in the heart⁵. This suggests that KV6.1 may be physiologically important in generating an increased number of KV channel phenotypes even though it does not itself form functional homomultimeric channels. Another study found that KV6.1 regulates the kinetics of KV2.2 channels. KV2.1/6.1 coexpression results in channels with markedly slower inactivation during strong depolarization but faster inactivation at intermediate potentials.

Synonyms:

K13; KCNG; kH2; KV6.1; MGC12878

Product images:


Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes: 1-2. Anti-KV6.1 (extracellular) antibody, (1:400). 3-4. Anti-KV6.1 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of KV6.1 in rat cerebellum. Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using Anti-KV6.1 (extracellular) antibody, (1:200). A. KV6.1 is detected in rat cerebellum (red). Staining is apparent in Purkinje neurons (arrow) and in the molecular layer (Mol). B. Cell nuclei in the same section are stained with DAPI (blue). C. Merge of the two images.