

Product datasheet for **TA328953**

Kcne2 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:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)IVEDWQQKYRSQILHLEDSK, corresponding to amino acid residues 88-107 of rat KCNE2 (MiRP1). 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 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 E regulatory subunit 2
Database Link:	NP_598287 Entrez Gene 9992 Human Entrez Gene 246133 Mouse Entrez Gene 171138 Rat P63161



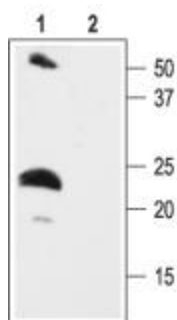
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Background:

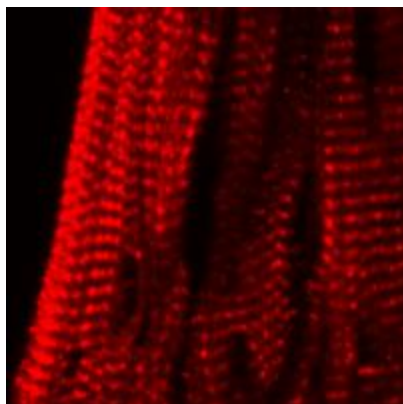
KCNE2 (or MiRP1) is a member of a family of proteins that regulate the activity of voltage-dependent K⁺ channels. The other members of the family are KCNE1 (IsK, MiNK), KCNE3 (MiRP2), KCNE4 (MiRP3) and KCNE5 (MiRP4). KCNE1 is the founding member of the family and KCNE2 was discovered based on its homology with KCNE1. The KCNE regulatory subunits are small proteins (14- 20 kD) with a type-1 integral membrane topology. It is believed that both the cytoplasmic C-terminus tail and the transmembrane domain are necessary for the interaction with the α subunits. The stoichiometry of the KCNE subunits with their partner α subunits in the native channels is not clear and ratios ranging from 2 to 14 KCNE subunits per 4 α subunits have been proposed. KCNE2 is broadly distributed with prominent expression in brain and heart, but also in other tissues such as skeletal muscle, pancreas and kidney. The best described functional association of KCNE2 is with the voltage-gated K⁺ channel Kv11.1 (HERG). In the heart, complexes of the two proteins constitute the molecular underlay of the cardiac IKr current and mutations in the KCNE2 subunit are associated with cardiac arrhythmias. KCNE2 can form complexes with other channels including the K⁺ channels Kv7.1 (KCNQ1) and Kv4.3 and the hyperpolarization-activated cation channels HCN1 and HCN2. In the stomach Kv7.1/KCNE2 complexes were found to be crucial for acid secretion as well as for the maintenance of structural integrity, and for parietal cell survival.

Synonyms:

ATFB4; LQT5; LQT6; MGC138292; MIRP1

Product images:

Western blot analysis of rat heart membranes: 1. Anti-KCNE2 (MiRP1) antibody, (1:200). 2. Anti-KCNE2 (MiRP1) antibody, preincubated with the control peptide antigen.



Expression of KCNE2 in mouse heart. Immunohistochemical staining of mouse heart frozen sections using Anti-KCNE2 (MiRP1) antibody, (red). Immunoreactivity appears as a striated pattern in heart muscle.