

Product datasheet for **TA328984**

Kcnf1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)K(S)VWKFLEKPESS, corresponding to amino acid residues 166- 178 of mouse KV5.1 . Intracellular, N-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% 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 F, member 1
Database Link:	NP_963289 Entrez Gene 3754 Human Entrez Gene 298908 Rat Entrez Gene 382571 Mouse Q7TSH7



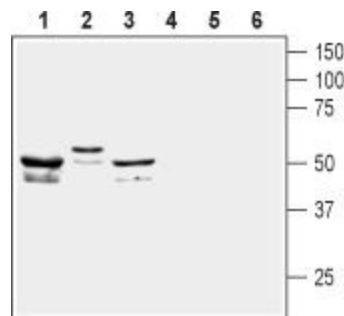
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Background:

Voltage-gated K⁺ channels are involved in maintaining membrane potential and regulating cell volume. They are also important for determining the cellular response to the external stimulus of neurotransmitters and neuro-peptides¹. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Voltage-gated K⁺ channels are transmembrane proteins consisting of four α -subunits arranged in radially symmetric fashion around a central aqueous pore. Each α -subunit consists of six transmembrane segments (S1-S6) with cytoplasmic NH₂- and COOH-termini². In mammals, a large family of genes encodes α -subunits: KV1 (homologous to Drosophila Shaker), KV2 (Shab), KV3 (Shaw), KV4 (Shal), KV5, KV6, and KV8. New electrically silent α -subunits have recently been cloned which constitute three new subfamilies: KV5.1, KV6.1, and KV8.1. These α -subunits, although cannot generate K⁺ channel activity by themselves, can modulate in a specific way the function of KV2.1 and KV2.2 subunits. They inhibit the KV2.1 and KV2.2 channels when expressed at high concentrations. KV5.1 is expressed in heart, skeletal muscle, brain, kidney, and pancreas. A recent study revealed the expression of KV5.1 in isolated urinary bladder smooth muscle (UBSM) myocytes.

Synonyms:

IK8; KCNF; KH1; KV5.1; MGC33316

Product images:

Western blot analysis of mouse brain lysate (lanes 1 and 4), human SHSY-5Y neuroblastoma cell line lysate (lanes 2 and 5) and rat brain membranes (lanes 3 and 6): 1-3. Anti-KV5.1 antibody, (1:400). 4-6. Anti-KV5.1 antibody, preincubated with the control peptide antigen.