

Product datasheet for **TA328927**

Kcna4 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 PYLPSNLLKKFRSSTSSSLGDKSEYLEMEEGVKESLCGKEE KCQKGDDSETDKNNCSNAKAVETDV, corresponding to amino acid residues 589-655 of rat Kv1.4. Intracellular, C-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, 5% sucrose, 0.025% NaN ₃ .
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 on possible cross-reactive antibodies to other Kv1 on immobilized homologous region of Kv1.1-GST, and then the antibody was affinity purified on immobilized Kv
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 A member 4
Database Link:	NP_037103 Entrez Gene 3739 Human Entrez Gene 16492 Mouse Entrez Gene 25469 Rat P15385



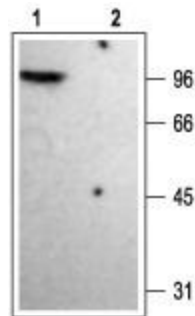
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Background:

KV1.4 is a mammalian voltage dependent K⁺ channel, homologous to the KV1.4 is a mammalian voltage dependent K⁺ channel, homologous to the Drosophila Shaker K⁺ channel. KV1.4 was first cloned from rat brain.¹ Eight Shaker related genes exist in mammals constituting the KV1, subfamily of the large KV channel family of genes. A functional KV1 channel is either a membrane spanning homotetramer or heterotetramer, which is composed of members of the same subfamily. In addition several auxiliary subunits and intracellular proteins might interact with the channel and affect its function. The structure of KV1.4 channel is similar to all KV channels and includes six membrane spanning helices creating a voltage sensor domain and a pore domain. The channel is expressed in neurons and cardiac and skeletal muscle tissue as well as in pancreas.² The functional channel is considered transient (A-type) current and shows pronounced inactivation. Therefore, this channel activity influences the membrane potential and excitability of neurons and muscle. KV1.4 channels are sensitive to high doses of TEA (>100 mM) and low doses of 4-AP (0.013 mM), the "classical" non-selective potassium channel blockers. Most venomous peptide toxins that affect other KV channels do not inhibit KV1.4. However, the sea anemone toxin Stichodactyla Toxin (ShK), which is more potent towards KV1.1 and KV1.3 is still a potent inhibitor of KV1.4 channels.

Synonyms:

HBK4; HK1; HPCN2; HUKII; KCNA4L; KCNA8; KV1.4; PCN2

Product images:

Western blot analysis of rat brain membranes: 1. Anti-KV1.4 antibody, (1:200). 2. Anti-KV1.4 antibody, preincubated with the control peptide antigen.