

Product datasheet for **TA328924**

Kcna5 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 HRETDHEEQAALKEEQGIQRRESGLDTGGQRKVSCSKASFHKTGGPLEST DSIRRGSCPLEKCHLKAKSNVDLRRSLYALCLDTS RETDL, corresponding to amino acid residues 513-602 of mouse Kv1.5 , (MW: 37 kDa.). 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, 0.05% 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 from antibodies cross-reactive to other Kv1 by affinity chromatography on immobilized Kv1.3-GST-fusion proteins, and then the antibody was affinity purified on
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium voltage-gated channel, shaker-related subfamily, member 5
Database Link:	NP_666095 Entrez Gene 3741 Human Entrez Gene 25470 Rat Entrez Gene 16493 Mouse Q61762



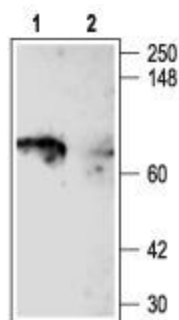
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Background:

KV1.5 is a mammalian voltage dependent K⁺ channel, homologous to the *Drosophila* Shaker K⁺ channel. KV1.5 was first cloned from rat brain. 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 KV1.5 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 cardiac and smooth muscle tissue (colon, aorta, stomach and pulmonary artery) as well as in neurons and kidney. A loss of function mutation in the gene encoding the channel was found in atrial fibrillation patients, stressing its role as a cardiac action potential regulator. The functional channel is considered transient (A-type) channel and shows prominent inactivation. Therefore, this channel activity influences the membrane potential and excitability of neurons and muscle. KV1.5 channels are sensitive to high doses of TEA (330 mM) and low doses of 4-AP (0.27 mM), the classical non-selective potassium channel blockers.

Synonyms:

ATFB7; HCK1; HK2; HPCN1; Kv1.5; MGC117058; MGC117059; PCN1

Product images:

Western blot analysis of rat brain membranes: 1. Anti-Kv1.5 antibody, (1:100). 2. Anti-Kv1.5 antibody, preincubated with the control peptide antigen.