OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA328988

Kcna5 Rabbit Polyclonal Antibody

Product data:

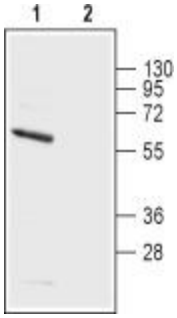
Product Type:	Primary Antibodies
Applications:	FC, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DERELLRHPPVP(K), corresponding to amino acid residues 268-279 of rat Kv1.5 . 1st extracellular 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% NaN3.
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 A member 5
Database Link:	NP_037104 Entrez Gene 3741 HumanEntrez Gene 25470 Rat P19024

View online »

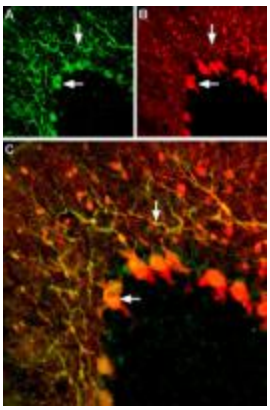
Background: KV1.5 is a mammalian voltage-dependent K+ channel, homologous to the Drosophila Shaker K+ channel. KV1.5 was first cloned from rat brain. Eight Shaker related genes exist in mammals constituting the KV1, subfamily of the large KV channel family of genes. A functional KV1 channel is either 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 helixes 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 kidney2. A loss of function mutation in the gene encoding the channel was found in atrial fibrilation patients, stressing its role as a cardiac action potential regulator.The functional channel is considered a transient (A-type) channel and shows prominent inactivation. Therefore, KV1.5 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 â??classicalâ? non-selective potassium channel blockers.

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

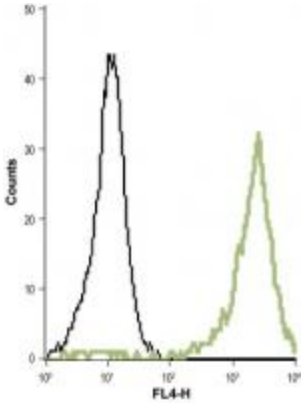
Product images:



Western blot analysis of rat brain membranes: 1. Anti-KV1.5 (extracellular) antibody, (1:200). 2. Anti-KV1.5 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of KV1.5 channels in rat cerebellum. Immunohistochemical staining of rat cerebellum with Anti-Kv1.5 (extracellular) antibody, (1:200). A. Kv1.5 (green) appears in both the soma of Purkinje cells (horizontal arrows) and in Purkinje dendrites (vertical arrows). B. Neurons expressing gamma amino butyric acid (GABA) were labeled with mouse anti-parvalbumin antibody (red). C. Merge of the two images demonstrates partial colocalization (white arrows).



Indirect flow cytometry analysis of live intact THP-1 (human acute monocytic leukemia cells) cell line: black line: Cells + Goat-anti-rabbit-Cy5. green line: Cells + Anti-KV1.5 (extracellular) antibody, (1:20) + goat-anti-rabbit-Cy5.