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Product datasheet for TA328637

Kv1.8 (KCNA10) 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)KDPETLLPTNDIHCR, corresponding to amino acid residues 187- 200 of human KV1.8. 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, 0.025% 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 10
Database Link:	NP_005540 Entrez Gene 242151 MouseEntrez Gene 295360 RatEntrez Gene 3744 Human Q16322

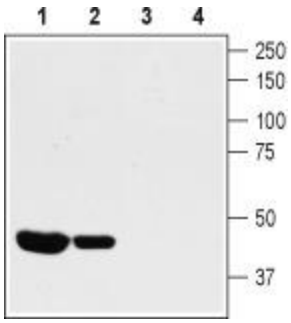
View online »

Background: Potassium (K+) channels regulate cell membrane potential and modulate a number of important cellular functions. K+ voltage-gated channel subfamily A member 10 (KCNA10) also known as KV1.8 is a voltage-gated K+ (KV) channel gene related to the Shaker family of K+ channels that includes eight members (KV1.1- KV1.8). KV1.8 contains six membrane-spanning domains with a shaker-type repeat in the fourth segment and a pore (P) region. Its most distinguishing feature is the presence of a putative cyclic nucleotide-binding (CNB) domain at the COOH terminus. It is specifically regulated by cGMP and postulated to mediate the effects of substances that increase intracellular cGMP. The channel displays an unusual inhibitor profile, because in addition to being blocked by classical K+ channel blockers, it is also sensitive to inhibitors of cyclic nucleotide gated cation channel such as verapamil and pimozide. KV1.8 is detected in kidney, heart, and aorta by Northern blot and postulated to participate in renal K+ metabolism and to regulate vascular tone. A recent study showed that a mutation of mouse KCNA10 causes significant vestibular and mild hearing dysfunction. In addition KCNA10 has been associated with Long QT syndrome (LQTS), an arrhythmogenic disorder characterized by prolongation of the QT interval on electrocardiograms (ECGs).

Synonyms: Kcn1; Kv1.8

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

Product images:



Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) heart lysates: 1-2. Anti-KV1.8 antibody, (1:800). 3-4. Anti-KV1.8 antibody, preincubated with the control peptide antigen.