

## Anti-KCNA6 antibody



**Description** Unconjugated Rabbit polyclonal to KCNA6

Model STJ191181

**Host** Rabbit

**Reactivity** Human, Mouse, Rat

**Applications** ELISA, WB

Immunogen Synthesized peptide derived from human KCNA6 protein.

**Immunogen Region** 420-500aa

**Gene ID** <u>3742</u>

Gene Symbol KCNA6

**Dilution range** WB 1:500-2000 ELISA 1:5000-20000

**Specificity** KCNA6 Polyclonal Antibody detects endogenous levels of protein.

**Purification** KCNA6 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

Protein Name Potassium voltage-gated channel subfamily A member 6 Voltage-gated

potassium channel HBK2 Voltage-gated potassium channel subunit Kv1.6

Molecular Weight 58 kDa

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:6225OMIM:176257</u>

Alternative Names Potassium voltage-gated channel subfamily A member 6 Voltage-gated

potassium channel HBK2 Voltage-gated potassium channel subunit Kv1.6

**Function** Voltage-gated potassium channel that mediates transmembrane potassium

transport in excitable membranes. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochemical gradient . The channel alternates between opened and closed conformations in response to the voltage difference across the membrane . Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA6, and possibly other family members as well; channel properties depend on the type of alpha subunits that are part of the channel . Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location

of the alpha subunits and promote rapid inactivation . Homotetrameric  $% \left( 1\right) =\left( 1\right) \left( 1$ 

channels display rapid activation and slow inactivation .

Sequence and Domain Family 
The N-terminus may be important in determining the rate of inactivation of

the channel while the tail may play a role in modulation of channel activity and/or targeting of the channel to specific subcellular compartments.; The transmembrane segment S4 functions as voltage-sensor and is characterized by a series of positively charged amino acids at every third position. Channel opening and closing is effected by a conformation change that affects the position and orientation of the voltage-sensor paddle formed by S3 and S4 within the membrane. A transmembrane electric field that is positive inside would push the positively charged S4 segment outwards, thereby opening the pore, while a field that is negative inside would pull the S4 segment inwards and close the pore. Changes in the position and orientation of S4 are then transmitted to the activation gate formed by the inner helix bundle via the S4-

S5 linker region.

Cellular Localization Cell membrane

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