

## Product datasheet for **TA328973**

### **Kcnb2 Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	WB
<b>Recommended Dilution:</b>	WB: 1:200-1:2000; IHC: 1:100-1:3000
<b>Reactivity:</b>	Human, Mouse, Rat
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Peptide CRQDIYQAVGEVKKD, corresponding to amino acid residues 859-873 of rat Kv2.2. Intracellular, C-terminus.
<b>Formulation:</b>	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% NaN <sub>3</sub> .
<b>Reconstitution Method:</b>	Add 50 ul double distilled water (DDW) to the lyophilized powder.
<b>Purification:</b>	Affinity purified on immobilized peptide.
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	potassium voltage-gated channel subfamily B member 2
<b>Database Link:</b>	<a href="#">NP_446452</a> <a href="#">Entrez Gene 9312 Human</a> <a href="#">Entrez Gene 98741 Mouse</a> <a href="#">Entrez Gene 117105 Rat</a>



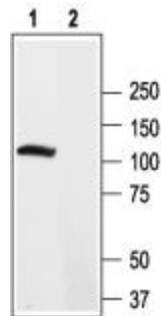
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**Background:**

KV2.2 is a member of the voltage-gated K<sup>+</sup> channel superfamily. Together with the closely related KV2.1 protein they form the KV2 subfamily also known as Shab. As with all KV channels, KV2.2 possesses the signature structure of the voltage-dependent K<sup>+</sup> channels: six membrane-spanning domains with intracellular N and C termini. The functional KV channel is a tetramer that can either be a homotetramer or a heteromer of KV2.2 and KV2.1 subunits. Both KV2.2 and KV2.1 channels are known as delayed rectifiers that is, channels that are activated by changes in membrane potential (depolarization) but inactivate very slowly. The current they form is known as IK or IDR. Accessory subunits such as KChAP and the electrically silent subunits KV8 and KV9 can modulate biochemical and biophysical properties of KV2.2. KV2.2 is expressed in the brain and in peripheral tissues such as gastrointestinal and vascular smooth muscle. Physiologically, KV2.2 has a role in maintaining membrane potential and in modulating electrical excitability in neurons. In smooth muscle cells, KV2.2 is probably involved in maintaining the contractile capacity of the cells. The pharmacology of the KV2.2 channel is somewhat limited. The channel is blocked by the classical K<sup>+</sup> channel blockers tetraethylammonium (TEA) and 4-aminopyridine (4-AP). More recently, the small peptide toxin Stromatoxin-1 has been found to be a potent and more specific inhibitor of the KV2 subfamily.

**Synonyms:**

KV2.2

**Product images:**

Western blot analysis of rat brain lysate: 1. Anti-Kv2.2 antibody, (1:2000). 2. Anti-Kv2.2 antibody, preincubated with the control peptide antigen.