

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody
Affinity purified rabbit polyclonal antibody
Catalog # AN1063**Specification**

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody - Product Information

Application	WB
Primary Accession	Q63099
Reactivity	Rat
Host	Rabbit
Clonality	polyclonal
Calculated MW	100 KDa

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody - Additional Information

Gene ID	621349
Gene Name	KCNB2

Other Names

Potassium voltage-gated channel subfamily B member 2, CDRK, Voltage-gated potassium channel subunit Kv2.2, Kcnb2

Target/Specificity

Synthetic peptide corresponding to amino acid residues specific to the Kv2.2 subunit conjugated to KLH.

Dilution

WB~~ 1:1000

Format

Prepared from rabbit serum by affinity purification using a Sulfo-Link® column matrix to which the peptide immunogen was coupled.

Antibody Specificity

Specific for the ~125k voltage gated potassium channel, Kv 2.2 subunit.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

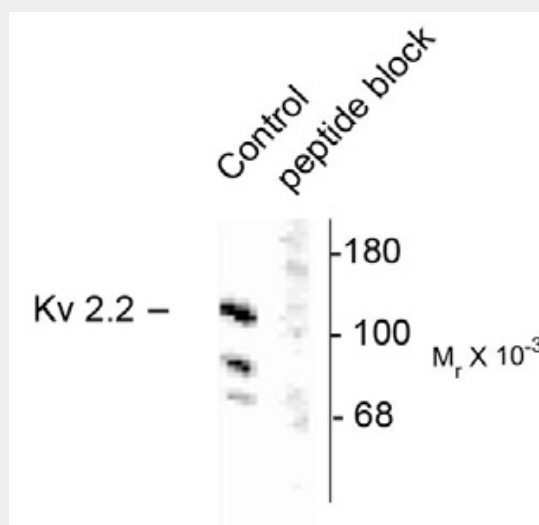
Blue Ice

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody - Images



Western blot of rat brain homogenate showing specific immunolabeling of the ~125k voltage-gated potassium channel, Kv2.2 (Control). The immunolabeling is blocked by preadsorption with the peptide used as antigen (Peptide block).

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody - Background

Voltage-gated K⁺ channels are important determinants of neuronal membrane excitability (Pongs, 1999). Moreover, differences in K⁺ channel expression patterns and densities contribute to the variations in action potential waveforms and repetitive firing patterns evident in different neuronal cell types. The delayed rectifier-type (IK) channels (Kv1.5, Kv2.1, and Kv2.2) are expressed on all neuronal somata and proximal dendrites and are also found in a wide variety of non-neuronal cells types including pancreatic islets, alveolar cells and cardiac myocytes (Hwang et al., 1993; Yan et al., 2004; Michaelievski et al., 2003). Kv2.1 and Kv2.2 form distinct populations of K⁺ channels and these subunits are thought to be primarily responsible for IK in superior cervical ganglion cells (Blaine and Ribera, 1998; Burger and Ribera, 1996).

Voltage Gated Potassium Channel, Kv2.2 Subunit Antibody - References

- Blaine JT, Ribera AB (1998) Heteromultimeric potassium channels formed by members of the Kv2 subfamily. *J Neurosci* 18:9585-9593.
- Burger C, Ribera AB (1996) Xenopus spinal neurons express Kv2 potassium channel transcripts during embryonic development. *J Neurosci* 16:1412-1421.
- Hwang PM, Fotuhi M, Brecht DS, Cunningham AM, Snyder SH (1993) Contrasting immunohistochemical localizations in rat brain of two novel K⁺ channels of the Shab subfamily. *J Neurosci* 13:1569-1576.
- Michaelievski I, Chikvashvili D, Tsuk S, Singer-Lahat D, Kang YH, Linial M, Gaisano HY, Fili O, Lotan I

(2003) Direct interaction of target SNAREs with the Kv2.1 channel - Modal regulation of channel activation and inactivation gating. J Biol Chem 278:34320-34330.

Pongs O (1999) Voltage-gated potassium channels: from hyperexcitability to excitement. FEBS Lett 452:31-35.

Yan L, Figueroa DJ, Austin CP, Liu Y, Bugianesi RM, Slaughter RS, Kaczorowski GJ, Kohler MG (2004) Expression of voltage-gated potassium channels in human and rhesus pancreatic islets. Diabetes 53:597-607.

D. Guan, T. Tkatch, D. J. Surmeier, W. E. Armstrong, and R. C. Foehring (2007) Kv2 subunits underlie slowly inactivating potassium current in rat neocortical pyramidal neurons J. Physiol., Jun 2007; 581: 941 - 960.