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ProductInformation

Anti-Voltage Gated Potassium Channel, Kv2.2 Subunit
Developed in Rabbit, Affinity Isolated Antibody
Product Number **P 1373**

Product Description

Anti-Voltage Gated Potassium Channel, Kv2.2 Subunit is developed in rabbit using a synthetic peptide specific for the Kv2.2 subunit in *Xenopus* and rodent conjugated to KLH as immunogen. The antiserum is purified by affinity chromatography using a SulfoLink® column matrix to which the peptide immunogen was coupled.

The antibody is specific for the ~125 kDa Kv2.2 protein. It has been used in immunoblotting, dot blot and immunohistochemistry applications. The antibody detects Kv2.2 in rat and *Xenopus.*

Voltage-gated K^+ channels are important determinants of neuronal membrane excitability, and 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 (I_K) 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 on non-neuronal cells types including pancreatic islets, alveolar cells and cardiac myocytes. Kv2.1 and Kv2.2 form distinct populations of K^+ channels and these subunits are thought to be primarily responsible for I_K in superior cervical ganglion cells.

Reagent

The antibody is supplied in 100 µL of 10 mM HEPES, pH 7.5, 150 mM NaCl, 100 ug/ml BSA, and 50% glycerol.

Storage/Stability

Store at –20 °C. Due to the presence of 50% glycerol the antibody will remain in solution. For extended storage, centrifuge the vial briefly before opening and prepare working aliquots. To ensure accurate dilutions mix gently, remove excess solution from pipette tip with clean absorbent paper, pipette slowly. The antibody is stable for at least 24 months when stored at –20 °C. Defrosted aliquots in use should be stored at 2-8 °C. Avoid repeated freezing and thawing.

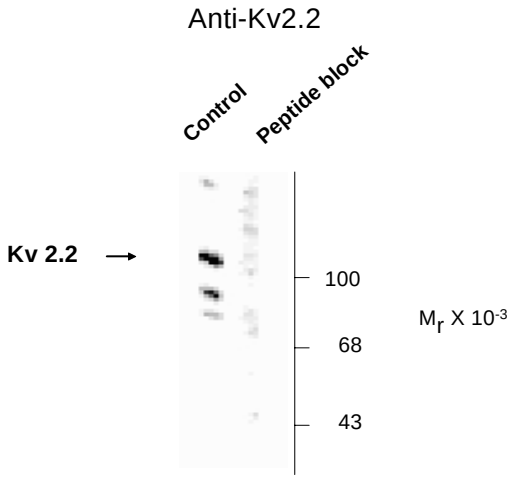
Product Profile

The supplied reagent is sufficient for 10 mini immunoblots.

A recommended working dilution of 1:1000 is determined by immunoblotting using rat brain homogenates. Also, use a 1:1000 working dilution for dot blot and immunohistochemistry.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by a titration test.

Results



Immunoblot of rat brain homogenate. As shown in the autoradiograph, the antibody is specific for the ~125kDa Kv2.2 protein and the labeling is blocked by preadsorption with the immunizing peptide.

References

1. Burger, C. and Ribera, A.B., Xenopus spinal neurons express Kv2 potassium channel transcripts during embryonic development., J. Neurosci. **16,** 1412–1421 (1996).

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

3. Maletic-Savatic, M., et al., Differential spatiotemporal expression of K^+ channel polypeptides in rat hippocampal neurons developing *in situ* and *in vitro.*, J. Neurosci. **15,** 3840 – 3851 (1995).

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