

## Product Information

## Anti-Potassium Channel Kv10.1 (EAG-1)

(Anti-Ether-a-go-go K<sup>+</sup> channel 2, Anti-KCNH1)

Produced in Rabbit, Affinity Isolated Antibody

**P0999**

### Product Description

Anti-Potassium Channel Kv10.1 was developed in rabbit using a peptide GDPAKRKGWARFKDAC, corresponding to residues 802-817 of rat Kv10.1 as the immunogen. This sequence is identical in mouse and has 14/16 residues identical in human. The antibody was affinity isolated on immobilized immunogen.

Anti-Potassium Channel Kv10.1 recognizes Kv10.1 by Western blotting of rat brain lysate and transfected cells HEK-Kv10.1. The antibody is specific for Kv10.1 and it will not cross-react with Kv10.2

The vast family of K<sup>+</sup> channels has been subdivided into the three main subfamilies, depending on the number of transmembrane domains: the 2 TM, 4 TM and 6 TM K<sup>+</sup> channels.<sup>1,2</sup> The 6 TM family includes the voltage-gated potassium (K<sub>v</sub>) channels, the KCNQ channels, the EAG channels (also including the hERG channels), and the calcium-activated potassium channels BK (Slo) and SK. Kv10.1 is a member of the *Ether-a-go-go* (EAG) family of voltage-activated K<sup>+</sup> channels. Its expression is normally confined to the brain where its physiological function has not yet been clarified.<sup>3</sup> Intriguingly, the Kv10.1 channel has been implicated in malignant tumor development.<sup>4</sup>

### Reagent

The antibody is supplied as lyophilized powder from phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 0.05% sodium azide as preservative.

### Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

### Preparation Instructions

Reconstitute the lyophilized vial with 0.05 mL or 0.2 mL deionized water, depending on package size. Further dilutions should be made using a carrier protein such as BSA (1%).

### Storage/Stability

Lyophilized powder can be stored intact at room temperature for several weeks. For extended storage, it should be stored at -20 °C or below. The reconstituted solution can be stored at 2-8 °C for up to 2 weeks. For longer storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. Centrifuge before use. Working dilution samples should be discarded if not used within 12 hours.

### Product Profile

The recommended working dilution is 1:200 for immunoblotting.

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

## References

1. Alexander, S.P., et al., Guide to receptors and channels, 1st edition, *Br. J. Pharmacol.*, **141**: Suppl 1:S1-S126 (2004).
2. Gutman, G.A., et al., International Union of Pharmacology. XLI. Compendium of voltage-gated ion channels: potassium channels, *Pharmacol. Rev.*, **55**: 583-586 (2003).
3. Jeng, C.J., et al., Differential localization of rat Eag1 and Eag2 K<sup>+</sup> channels in hippocampal neurons, *Neuroreport*, **16**: 229-233 (2005).
4. Patt, S., et al., Expression of ether a go-go potassium channels in human gliomas, *Neurosci Lett*, **368** 249-253 (2004).

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