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Product Information

Anti-Potassium Channel K_V10.1 (EAG-1)

(Anti-Ether-a-go-go K⁺ channel 1; Anti-KCNH1)
produced in rabbit, affinity isolated antibody

Product Number **P0999**

Product Description

Anti-Potassium Channel K_V10.1 was developed in rabbit using a peptide GDPAKRKGWARFKDAC, corresponding to residues 802-817 of rat K_V10.1 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 K_V10.1 recognizes K_V10.1 by Western blotting of rat brain lysate and transfected cells HEK-K_V10.1. The antibody is specific for K_V10.1 and it will not cross-react with K_V10.2

The vast family of K⁺ 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⁺ channels.^{1,2} The 6 TM family includes the voltage-gated potassium (K_V) channels, the KCNQ channels, the EAG channels (also including the hERG channels), and the calcium-activated potassium channels BK (Slo) and SK. K_V10.1 is a member of the *Ether-a-go-go* (EAG) family of voltage-activated K⁺ channels. Its expression is normally confined to the brain where its physiological function has not yet been clarified.³ Intriguingly, the K_V10.1 channel has been implicated in malignant tumor development.⁴

Reagent

The antibody is supplied as lyophilized powder from phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 0.025% sodium azide as preservative.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling.

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

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- Jeng, C.J., et al., Differential localization of rat Eag1 and Eag2 K⁺ channels in hippocampal neurons, *Neuroreport*, **16**, 229-233 (2005).
- 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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