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Product Information

Anti-Potassium Channel K_{IR}3.2 (GIRK2)
produced in rabbit, affinity isolated antibody

Catalog Number **P8122**

Product Description

Anti-Potassium Channel K_{IR}3.2 (GIRK2) was developed in rabbit using a GST fusion protein with sequence ELANR AEVPL SWSVS SKLNQ HAELE TEEEE KNPEE LTERN G**,** corresponding to residues 374-414 of mouse K_{IR}3.2 (GIRK2) as the immunogen. Sequence homology is: rat, golden hamster, human, 40/41, 39/41, and 37/41 residues identical, respectively. The antibody was affinity isolated on immobilized immunogen.

Anti-Potassium Channel K_{IR}3.2 (GIRK2) recognizes K_{IR}3.2 (GIRK2) by Western blotting of rat brain membranes.

The action of potassium (K^+) channels is regulated by voltage, calcium, and a variety of neurotransmitters. Each subfamily generally consists of a primary pore forming α subunit that is associated with several regulatory subunits.[1] To date, some 70 different genes that encode the α subunits of K^+ channels have been identified. Recently, the crystal structure of the K^+ channels has been identified.[2]

The vast family of K^+ channels has been subdivided into the three main subfamilies: the 2 TM, 4 TM and 6 TM K^+ channels.[3] The G-protein-activated inwardly rectifying potassium channels (GIRKs) are members of the 2 TM family, also known as inwardly-rectifying potassium (K_{IR}) channels. Inward rectifiers have two main physiological roles: to mediate transport across the cell membrane and to stabilize the resting membrane potential near the potassium equilibrium potential.[4] Four GIRKs, referred to as K_{IR}3.1-3.4, have been identified in mammals.[5]

Reagent

The antibody is supplied as a powder lyophilized from phosphate buffered saline, pH 7.4, containing 1% BSA 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 with 0.05 mL or 0.2 mL of ultrapure 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 at room temperature for several weeks. For extended storage, it should be stored at –20 °C. The reconstituted solution can be stored at 2–8 °C for up to 2 weeks. For longer storage, freeze in working aliquots. Avoid repeated freezing and thawing, and storage in “frost-free” freezers. Centrifuge before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: The recommended working dilution is 1:200.

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., Br. J. Pharmacol., **141**, Suppl 1:S1-S126 (2004).
2. MacKinnon, R., FEBS Letters, **555**, 62-65 (2003).
3. Gutman, G.A. et al., Pharmacol. Rev., **55**, 583-586 (2003).
4. Yamada, M. et al., Pharmacol. Rev**., 50**, 723-760 (1998).
5. Mark, M.D., and Herlitze, S., Eur. J. Biochem., **267**, 5830-5836 (2000).

TT,TD,KAA,MCT,PHC,MAM 02/19-1

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