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KCNMB1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP14747c

Specification

KCNMB1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession	Q16558

KCNMB1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 3779

Other Names
Calcium-activated potassium channel subunit beta-1, BK channel subunit beta-1, BKbeta, BKbeta1, Hbeta1, Calcium-activated potassium channel, subfamily M subunit beta-1, Calcium-activated potassium channel subunit beta, Charybdotoxin receptor subunit beta-1, K(VCA)beta-1, Maxi K channel subunit beta-1, Slo-beta-1, Slo-beta, KCNMB1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

KCNMB1 Antibody (Center) Blocking Peptide - Protein Information

Name KCNMB1

Function
Regulatory subunit of the calcium activated potassium KCNMA1 (maxiK) channel. Modulates the calcium sensitivity and gating kinetics of KCNMA1, thereby contributing to KCNMA1 channel diversity. Increases the apparent Ca(2+)/voltage sensitivity of the KCNMA1 channel. It also modifies KCNMA1 channel kinetics and alters its pharmacological properties. It slows down the activation and the deactivation kinetics of the channel. Acts as a negative regulator of smooth muscle contraction by enhancing the calcium sensitivity to KCNMA1. Its presence is also a requirement for internal binding of the KCNMA1 channel opener dehydrosoyasaponin I (DHS-1) triterpene glycoside and for external binding of the agonist hormone 17-beta-estradiol (E2). Increases the binding activity of charybdotoxin (CTX) toxin to KCNMA1 peptide blocker by increasing the CTX association rate and decreasing the dissociation rate.

Cellular Location
Membrane; Multi-pass membrane protein.

Tissue Location

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Abundantly expressed in smooth muscle. Low levels of expression in most other tissues. Within the brain, relatively high levels found in hippocampus and corpus callosum

KCNMB1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

KCNMB1 Antibody (Center) Blocking Peptide - Images

KCNMB1 Antibody (Center) Blocking Peptide - Background

MaxiK channels are large conductance, voltage andcalcium-sensitive potassium channels which are fundamental to thecontrol of smooth muscle tone and neuronal excitability. MaxiKchannels can be formed by 2 subunits: the pore-forming alphasubunit and the product of this gene, the modulatory beta subunit.Intracellular calcium regulates the physical association betweenthe alpha and beta subunits.

KCNMB1 Antibody (Center) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care (2010) In press :Xie, M.J., et al. Am. J. Physiol., Cell Physiol. 298 (6), C1489-C1500 (2010) :Yokoyama, K., et al. Nephron Clin Pract 115 (4), C237-C243 (2010) :Long, X., et al. J. Biol. Chem. 284(48):33671-33682(2009)Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)