10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KCNMB1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14747c

Product Information

Application	WB, E
Primary Accession	Q16558
Other Accession	NP_004128.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34948
Calculated MW	21797
Antigen Region	43-72

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
Target/Specificity	This KCNMB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 43-72 amino acids from the Central region of human KCNMB1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	KCNMB1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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	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

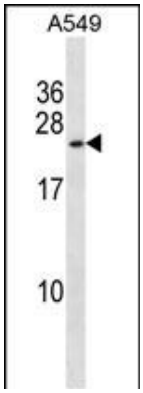
Background

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

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)

Images



KCNMB1 Antibody (Center) (Cat. #AP14747c) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the KCNMB1 antibody detected the KCNMB1 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.