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KCNMB4 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant KCNMB4.
Catalog # AT2602a

Product Information

Application	E
Primary Accession	Q86W47
Other Accession	BC050621
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 kappa
Clone Names	1G7
Calculated MW	23949

Additional Information

Gene ID	27345
Other Names	Calcium-activated potassium channel subunit beta-4, BK channel subunit beta-4, BKbeta4, Hbeta4, Calcium-activated potassium channel, subfamily M subunit beta-4, Charybdotoxin receptor subunit beta-4, K(VCA)beta-4, Maxi K channel subunit beta-4, Slo-beta-4, KCNMB4
Target/Specificity	KCNMB4 (AAH50621, 1 a.a. ~ 210 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	KCNMB4 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

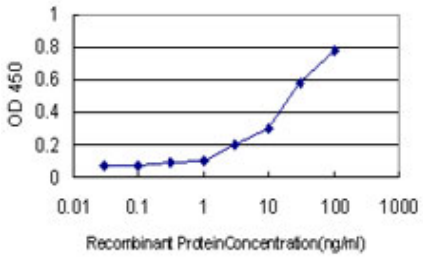
Background

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 modulatory beta subunit. The protein encoded by this gene is an auxiliary beta subunit which slows activation kinetics, leads to steeper calcium sensitivity, and shifts the voltage range of current activation to more negative potentials than does the beta 1 subunit.

References

Interactions between beta subunits of the KCNMB family and Slo3: beta4 selectively modulates Slo3 expression and function. Yang CT, et al. PLoS One, 2009 Jul 3. PMID 19578543.{beta} subunit-specific modulations of BK channel function by a mutation associated with epilepsy and dyskinesia. Lee US, et al. J Physiol, 2009 Apr 1. PMID 19204046.Identification of a BK channel auxiliary protein controlling molecular and behavioral tolerance to alcohol. Martin GE, et al. Proc Natl Acad Sci U S A, 2008 Nov 11. PMID 18981408.Structural basis for toxin resistance of beta4-associated calcium-activated potassium (BK) channels. Gan G, et al. J Biol Chem, 2008 Aug 29. PMID 18559348.Multicentre search for genetic susceptibility loci in sporadic epilepsy syndrome and seizure types: a case-control study. Cavalleri GL, et al. Lancet Neurol, 2007 Nov. PMID 17913586.

Images



Detection limit for recombinant GST tagged KCNMB4 is approximately 0.3ng/ml as a capture antibody.