

### KCNMA1 Blocking Peptide (N-Term)

Synthetic peptide Catalog # BP21822a

### **Specification**

### KCNMA1 Blocking Peptide (N-Term) - Product Information

**Primary Accession** 

012791

# KCNMA1 Blocking Peptide (N-Term) - Additional Information

**Gene ID 3778** 

#### **Other Names**

Calcium-activated potassium channel subunit alpha-1, BK channel, BKCA alpha, Calcium-activated potassium channel, subfamily M subunit alpha-1, K(VCA)alpha, KCa11, Maxi K channel, MaxiK, Slo-alpha, Slo1, Slowpoke homolog, Slo homolog, hSlo, KCNMA1, KCNMA, SLO

#### **Target/Specificity**

The synthetic peptide sequence is selected from aa 138-152 of HUMAN KCNMA1

#### **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.

# KCNMA1 Blocking Peptide (N-Term) - Protein Information

Name KCNMA1 (HGNC:6284)

Synonyms KCNMA, SLO

### **Function**

Potassium channel activated by both membrane depolarization or increase in cytosolic Ca(2+) that mediates export of K(+) (PubMed:<a href="http://www.uniprot.org/citations/29330545" target="\_blank">29330545</a>, PubMed:<a href="http://www.uniprot.org/citations/31152168" target="\_blank">31152168</a>). It is also activated by the concentration of cytosolic Mg(2+). Its activation dampens the excitatory events that elevate the cytosolic Ca(2+) concentration and/or depolarize the cell membrane. It therefore contributes to repolarization of the membrane potential. Plays a key role in controlling excitability in a number of systems, such as regulation of the contraction of smooth muscle, the tuning of hair cells in the cochlea, regulation of transmitter release, and innate immunity. In smooth muscles, its activation by high level of Ca(2+), caused by ryanodine receptors in the sarcoplasmic reticulum, regulates the membrane potential. In cochlea cells, its number and kinetic properties partly determine the characteristic frequency of each hair



cell and thereby helps to establish a tonotopic map. Kinetics of KCNMA1 channels are determined by alternative splicing, phosphorylation status and its combination with modulating beta subunits. Highly sensitive to both iberiotoxin (IbTx) and charybdotoxin (CTX).

# **Cellular Location**

Cell membrane; Multi-pass membrane protein

#### **Tissue Location**

Widely expressed. Except in myocytes, it is almost ubiquitously expressed.

### KCNMA1 Blocking Peptide (N-Term) - Protocols

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

#### • Blocking Peptides

KCNMA1 Blocking Peptide (N-Term) - Images

## KCNMA1 Blocking Peptide (N-Term) - Background

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## KCNMA1 Blocking Peptide (N-Term) - References

Dworetzky S.I.,et al.Brain Res. Mol. Brain Res. 27:189-193(1994). McCobb D.P.,et al.Am. J. Physiol. 269:H767-H777(1995). Deloukas P.,et al.Nature 429:375-381(2004). Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Tseng-Crank J.,et al.Neuron 13:1315-1330(1994).