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MaxiKα Polyclonal Antibody

Catalog # AP70849

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q12791
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	137560

Additional Information

Gene ID	3778
Other Names	KCNMA1; KCNMA; SLO; Calcium-activated potassium channel subunit alpha-1; BK channel; BKCA alpha; Calcium-activated potassium channel; subfamily M subunit alpha-1; K(VCA)alpha; KCa1.1; Maxi K channel; MaxiK; Slo-alpha; Slo1; Slowpoke homolog
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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:14523450, PubMed:29330545, PubMed:31152168). 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). Possibly induces sleep when activated by melatonin and through melatonin receptor MTNR1A- dependent dissociation of G-beta and G-gamma subunits, leading to increased sensitivity to Ca(2+) and reduced synaptic transmission (PubMed:32958651).

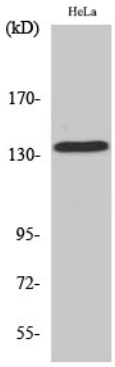
Cellular Location Cell membrane; Multi-pass membrane protein

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

Background

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Images



Western Blot analysis of various cells using MaxiKα Polyclonal Antibody

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