

ARG66539 anti-KCNMA1 / KCa1.1 antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes KCNMA1 / KCa1.1
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	KCNMA1 / KCa1.1
Species	Human
Immunogen	Synthetic peptide around the internal region of Human KCNMA1 / KCa1.1.
Conjugation	Un-conjugated
Alternate Names	Slo homolog; VCA; bA205K10.1; Slo-alpha; SLO1; BK channel; mSLO1; K; MaxiK; hSlo; BKCA alpha; Maxi K channel; BKTM; KCa1.1; SLO; SAKCA; Slowpoke homolog; Slo1; SLO-ALPHA; Calcium-activated potassium channel, subfamily M subunit alpha-1; Calcium-activated potassium channel subunit alpha-1

Application Instructions

Application table	Application	Dilution
	IHC-P	1:100 - 1:300
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 138 kDa	

Properties

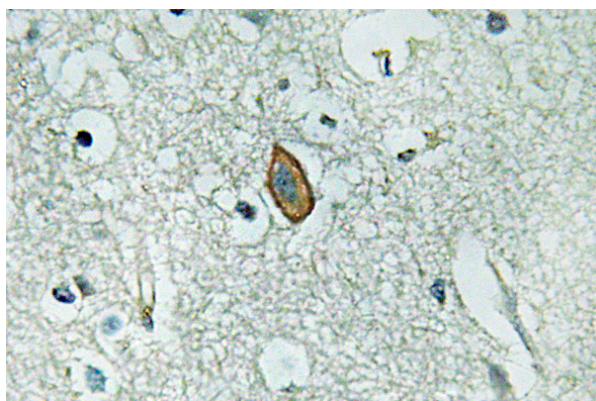
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.02% Sodium azide, 50% Glycerol and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol and 0.5% BSA
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

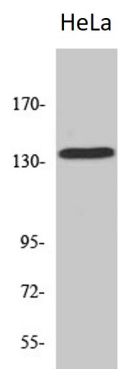
Gene Symbol	KCNMA1
Gene Full Name	potassium channel, calcium activated large conductance subfamily M alpha, member 1
Background	MaxiK channels are large conductance, voltage and calcium-sensitive potassium channels which are fundamental to the control of smooth muscle tone and neuronal excitability. MaxiK channels can be formed by 2 subunits: the pore-forming alpha subunit, which is the product of this gene, and the modulatory beta subunit. Intracellular calcium regulates the physical association between the alpha and beta subunits. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]
Function	Potassium channel activated by both membrane depolarization or increase in cytosolic Ca(2+) that mediates export of K(+). 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). [UniProt]
Calculated Mw	138 kDa
PTM	Phosphorylated (Probable). Phosphorylation by kinases such as PKA and/or PKG. In smooth muscles, phosphorylation affects its activity. Palmitoylation by ZDHHC22 and ZDHHC23 within the intracellular linker between the S0 and S1 transmembrane domains regulates localization to the plasma membrane. Depalmitoylated by LYPLA1 and LYPLAL1, leading to retard exit from the trans-Golgi network. [UniProt]
Cellular Localization	Cell membrane; Multi-pass membrane protein. [UniProt]

Images



ARG66539 anti-KCNMA1 / KCa1.1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human brain tissue stained with ARG66539 anti-KCNMA1 / KCa1.1 antibody.



ARG66539 anti-KCNMA1 / KCa1.1 antibody WB image

Western blot: HeLa cells stained with ARG66539 anti-KCNMA1 / KCa1.1 antibody.