

KCNA3 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14690c

Product Information

Application	WB, E
Primary Accession	P22001
Other Accession	P15384 , P16390 , NP_002223.3
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34612
Calculated MW	63842
Antigen Region	239-268

Additional Information

Gene ID	3738
Other Names	Potassium voltage-gated channel subfamily A member 3, HGK5, HLK3, HPCN3, Voltage-gated K(+) channel HuKIII, Voltage-gated potassium channel subunit Kv13, KCNA3, HGK5
Target/Specificity	This KCNA3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 239-268 amino acids from the Central region of human KCNA3.
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	KCNA3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KCNA3
Synonyms	HGK5

Function	[Isoform 1]: Mediates the voltage-dependent potassium ion permeability of excitable membranes. Assuming opened or closed conformations in response to the voltage difference across the membrane, the protein forms a potassium-selective channel through which potassium ions may pass in accordance with their electrochemical gradient.
Cellular Location	[Isoform 1]: Cell membrane; Multi-pass membrane protein [Isoform 3]: Cytoplasm, perinuclear region

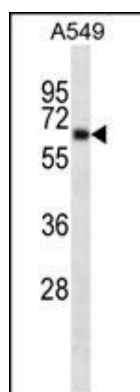
Background

Potassium channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in *Drosophila*, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. This member contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It belongs to the delayed rectifier class, members of which allow nerve cells to efficiently repolarize following an action potential. It plays an essential role in T-cell proliferation and activation. This gene appears to be intronless and it is clustered together with KCNA2 and KCNA10 genes on chromosome 1.

References

Wang, T., et al. *J. Neurosci.* 30(14):5020-5027(2010)
 Tu, L.W., et al. *J. Mol. Biol.* 396(5):1346-1360(2010)
 Pouloupoulou, C., et al. *Neurobiol. Dis.* 37(2):339-348(2010)
 Nicolaou, S.A., et al. *Cell Calcium* 47(1):19-28(2010)
 Feng, D.Y., et al. *Zhonghua Xin Xue Guan Bing Za Zhi* 37(7):599-604(2009)

Images



KCNA3 Antibody (Center) (Cat. #AP14690c) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the KCNA3 antibody detected the KCNA3 protein (arrow).

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