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KCNA3 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant KCNA3.
Catalog # AT2590a

Product Information

Application	WB, E
Primary Accession	P22001
Other Accession	BC035059
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	1D8
Calculated MW	63842

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	KCNA3 (AAH35059, 424 a.a. ~ 523 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 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	KCNA3 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

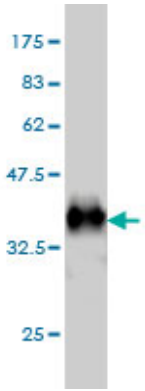
Potassium channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle 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.

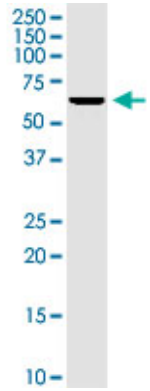
References

Activated T-cells inhibit neurogenesis by releasing granzyme B: rescue by Kv1.3 blockers. Wang T, et al. J Neurosci, 2010 Apr 7. PMID 20371822.A folding zone in the ribosomal exit tunnel for Kv1.3 helix formation. Tu LW, et al. J Mol Biol, 2010 Mar 12. PMID 20060838.[Kv1.3 potassium channel expression changes after CD4(+) and subsets CD28(null)/CD28(+)T cells activation in peripheral blood of patients with acute coronary syndrome] Feng DY, et al. Zhonghua Xin Xue Guan Bing Za Zhi, 2009 Jul. PMID 19961728.Differential calcium signaling and Kv1.3 trafficking to the immunological synapse in systemic lupus erythematosus. Nicolaou SA, et al. Cell Calcium, 2010 Jan. PMID 19959227.Aberrant modulation of a delayed rectifier potassium channel by glutamate in Alzheimer's disease. Poulopoulou C, et al. Neurobiol Dis, 2010 Feb. PMID 19850126.

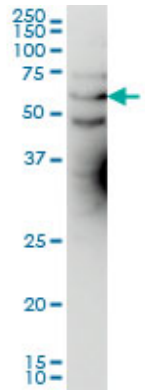
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.63 KDa) .

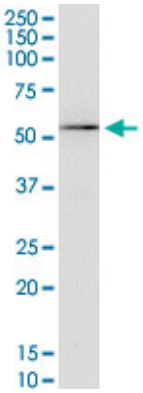


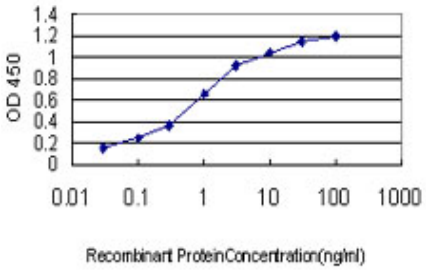
KCNA3 monoclonal antibody (M01), clone 1D8. Western Blot analysis of KCNA3 expression in human liver.



KCNA3 monoclonal antibody (M01), clone 1D8 Western Blot analysis of KCNA3 expression in Hela S3 NE ((Cat # AT2590a)

KCNA3 monoclonal antibody (M01), clone 1D8. Western Blot analysis of KCNA3 expression in Jurkat.





Detection limit for recombinant GST tagged KCNA3 is approximately 0.03ng/ml as a capture antibody.

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