KCNAB1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	KCNAB1, Polyclonal Antibody
Full Product Name	KCNAB1, NT (KCNAB1, KCNA1B, Voltage-gated potassium channel subunit beta-1, K(+) channel subunit beta-1, Kv-beta-1) (MaxLight 650)
Product Gene Name	anti-KCNAB1 antibody
Product Synonym Names	KCNAB1; KCNA1B; Voltage-gated potassium channel subunit beta-1; K(+) channel subunit beta-1; Kv-beta-1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	45,492 Da
OMIM	601141
3D Structure	ModBase 3D Structure for Q14722
Immunogen	KCNAB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-44 amino acids from the N-terminal region of human KCNAB1.
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-KCNAB1 antibody	Antibodies; Ion Channel
Applications Tested/Suitable for anti-KCNAB1 antibody	Western Blot (WB), FLISA
Application Notes for anti-KCNAB1 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-KCNAB1 antibody	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 includes three distinct isoforms which are encoded by three alternatively spliced transcript variants of this gene. These three isoforms are beta subunits, which form heteromultimeric complex with alpha subunits and modulate the activity of the pore-forming alpha subunits.

Product References and Citations for anti-KCNAB1 antibody	Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010): Decher, N., et al. EMBO J. 27(23):3164-3174(2008). Cavalleri, G.L., et al. Lancet Neurol 6(11):970-980(2007). Lamesch, P., et al. Genomics 89(3):307-315(2007). Lunetta, K.L., et al. BMC Med. Genet. 8 SUPPL 1, S13 (2007).
Other Notes	Small volumes of anti-KCNAB1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for KCNAB1 purchase	MBS6312277 is an antibody targeting KCNAB1. Also known as KCNAB1, NT (KCNAB1, KCNA1B, Voltage-gated potassium channel subunit beta-1, K(+) channel subunit beta-1, Kv-beta-1) (MaxLight 650). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KCNAB1. It may not necessarily be applicable to this product.

NCBI GI #	27436962
NCBI GeneID	7881
NCBI Accession #	NP_003462.2
UniProt Primary Accession #	Q14722
UniProt Secondary Accession #	Q13031; Q13302; Q16547; Q6PI60; Q99869; A8K9H8; A8KAD4; B3KPZ4
UniProt Related Accession #	Q14722
GenBank Nucleotide #	NM_003471.3
NCBI Official Full Name	voltage-gated potassium channel subunit beta-1 isoform 2
NCBI Official Synonym Full Names	potassium voltage-gated channel, shaker-related subfamily, beta member 1
NCBI Official Symbol	KCNAB1
NCBI Official Synonym Symbols	hKvb3; AKR6A3; KCNA1B; Kvb1.3; hKvBeta3; KV-BETA-1
UniProt Protein Name	Voltage-gated potassium channel subunit beta-1
UniProt Synonym Protein Names	K(+) channel subunit beta-1; Kv-beta-1
Protein Family	Voltage-gated potassium channel
UniProt Gene Name	KCNAB1
UniProt Synonym Gene Names	KCNA1B
UniProt Entry Name	KCAB1_HUMAN
NCBI Protein Information	voltage-gated potassium channel subunit beta-1; K(+) channel subunit beta-1; potassium channel beta 3 chain; potassium channel beta3 subunit; potassium channel shaker chain beta 1a; potassium voltage-gated channel beta subunit; voltage-gated potassium cha
NCBI Summary for KCNAB1	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 includes three distinct isoforms which are encoded by three alternatively spliced transcript variants of this gene. These three isoforms are beta subunits, which form heteromultimeric complex with alpha subunits and modulate the activity of the pore-forming alpha subunits. [provided by RefSeq, Jul 2008]

UniProt Comments for KCNAB1	Kv-beta1: Accessory potassium channel protein which modulates the activity of the pore-forming alpha subunit. All three isoforms alter the functional properties of Kv1.4 and Kv1.5. Isoform KvB1.2 has no effect on Kv1.1, Kv1.2 or Kv2.1. Belongs to the shaker potassium channel beta subunit family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Channel, potassium Chromosomal Location of Human Ortholog: 3q26.1 Cellular Component: extrinsic to internal side of plasma membrane; plasma membrane; cytosol Molecular Function: voltage-gated potassium channel activity; potassium channel regulator activity; aldo-keto reductase activity Biological Process: synaptic transmission; learning and/or memory; potassium ion transport
Research Articles on KCNAB1	**1.** These results support KCNAB1 as a susceptibility gene for lateral temporal epilepsy , in agreement with previous studies showing that this gene may alter susceptibility to focal epilepsy.
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