KCND3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	KCND3, Polyclonal Antibody
Full Product Name	KCND3, NT (KCND3, Potassium voltage-gated channel subfamily D member 3, Voltage-gated potassium channel subunit Kv4.3) (MaxLight 405)
Product Gene Name	anti-KCND3 antibody
Product Synonym Names	KCND3; Potassium voltage-gated channel subfamily D member 3; Voltage-gated potassium channel subunit Kv4.3
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 MaxLight405.
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: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
OMIM	gene 607346
3D Structure	ModBase 3D Structure for Q9UK17
Immunogen	KCND3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 12-41 amino acids from the N-terminal region of human KCND3.
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-KCND3 antibody	Antibodies; Ion Channel
Applications Tested/Suitable for anti-KCND3 antibody	Western Blot (WB), FLISA
Application Notes for anti-KCND3 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-KCND3 antibody	Voltage-gated potassium (Kv) 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, shal-related subfamily, members of which form voltage-activated A-type potassium ion channels and are prominent in the repolarization phase of the action potential. This member includes two isoforms with different sizes, which are encoded by alternatively spliced transcript variants of this gene. [provided by RefSeq].
Product References and Citations for anti-KCND3 antibody	Lundby, A., et al. Br. J. Pharmacol. 160(8):2028-2044(2010). Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010): Liang, P., et al. Biophys. J. 98(12):2867-2876(2010). Cotella, D., et al. Pflugers Arch. 460(1):87-97(2010). Tan, X.Q., et al. Zhonghua Xin Xue Guan Bing Za Zhi 37(6):509-513(2009).

Other Notes	Small volumes of anti-KCND3 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 KCND3 purchase	MBS6312373 is an antibody targeting KCND3. Also known as KCND3, NT (KCND3, Potassium voltage-gated channel subfamily D member 3, Voltage-gated potassium channel subunit Kv4.3) (MaxLight 405). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KCND3. It may not necessarily be applicable to this product.

NCBI GI #	27436986
NCBI GeneID	3752
NCBI Accession #	NP_751948.1
NCBI Related Accession #	NP_004971.2
UniProt Primary Accession #	Q9UK17
UniProt Related Accession #	Q9UK17
GenBank Nucleotide #	NP_751948.1
NCBI Official Full Name	potassium voltage-gated channel subfamily D member 3 isoform 2
NCBI Official Synonym Full Names	potassium voltage-gated channel subfamily D member 3
NCBI Official Symbol	KCND3
NCBI Official Synonym Symbols	KV4.3; SCA19; SCA22; BRGDA9; KCND3L; KCND3S; KSHIVB
UniProt Protein Name	Potassium voltage-gated channel subfamily D member 3
UniProt Synonym Protein Names	Voltage-gated potassium channel subunit Kv4.3
Protein Family	Potassium voltage-gated channel subfamily
UniProt Gene Name	KCND3
UniProt Entry Name	KCND3_HUMAN
NCBI Protein Information	potassium voltage-gated channel subfamily D member 3
NCBI Summary for KCND3	Voltage-gated potassium (Kv) 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, shal-related subfamily, members of which form voltage-activated A-type potassium ion channels and are prominent in the repolarization phase of the action potential. This member includes two isoforms with different sizes, which are encoded by alternatively spliced transcript variants of this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for KCND3	Kv4.3: Pore-forming (alpha) subunit of voltage-gated rapidly inactivating A-type potassium channels. May contribute to I(To) current in heart and I(Sa) current in neurons. Channel properties are modulated by interactions with other alpha subunits and with regulatory subunits. KCND3 rare variants may confer risk for lethal ventricular arrhytmias and be associated with autopsy-negative sudden unexplained death syndrome (SUDS). Belongs to the potassium channel family. D (Shal) (TC 1.A.1.2) subfamily. Kv4.3/KCND3 sub-subfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Channel, potassium; Membrane protein, multi-pass; Membrane protein, integral Chromosomal Location of Human Ortholog: 1p13.3 Cellular Component: voltage-gated potassium channel complex; cell soma; dendrite; plasma membrane; sarcolemma Molecular Function: protein binding; metal ion binding; delayed rectifier potassium channel activity; A-type (transient outward) potassium channel activity Biological Process: synaptic transmission; protein homooligomerization; potassium ion transport Disease: Brugada Syndrome 9; Spinocerebellar Ataxia 19
Research Articles on KCND3	**1.** we utilized the NGS technology to identify two novel KCND3 mutations from two distinct pedigrees with molecularly unassigned SCA. Our clinical observations broaden the genotypic and phenotypic spectrum of SCA19/22 to include cerebellar ataxia, developmental delay, cognitive impairment, myoclonus, and dystonia, thereby emphasizing the significance of KCND3 mutations in a wide range of different neurological disorders.
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