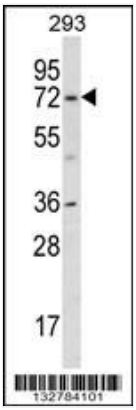
KCND1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	KCND1, Polyclonal Antibody
Full Product Name	KCND1, NT (KCND1, Potassium voltage-gated channel subfamily D member 1, Voltage-gated potassium channel subunit Kv4.1) (AP)
Product Gene Name	anti-KCND1 antibody
Product Synonym Names	KCND1; Potassium voltage-gated channel subfamily D member 1; Voltage-gated potassium channel subunit Kv4.1
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 Alkaline Phosphatase (AP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C. 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. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	71,330 Da
Chromosome Location	Chromosome: X; NC_000023.10 (48818639..48828251, complement). Location: Xp11.23
OMIM	300281
3D Structure	ModBase 3D Structure for Q9NSA2
Immunogen	KCND1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 117-147 amino acids from the N-terminal region of human KCND1.
Conjugate	AP
Note	Preservative Free
Product Categories/Family for anti-KCND1 antibody	Antibodies; Ion Channel
Applications Tested/Suitable for anti-KCND1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-KCND1 antibody	WB: 1:100-500 ELISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-KCND1 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 gene is expressed at moderate levels in all tissues analyzed, with lower levels in skeletal muscle.

Product References and Citations for anti-KCND1 antibody	Jang, S.H., et al. Biochem. Biophys. Res. Commun. 384(2):180-186(2009). Gutman, G.A., et al. Pharmacol. Rev. 57(4):473-508(2005). Jerng, H.H., et al. Biophys. J. 87(4):2380-2396(2004). Nakamura, T.Y., et al. FEBS Lett. 499(3):205-209(2001). Isbrandt, D., et al. Genomics 64(2):144-154(2000).
Other Notes	Small volumes of anti-KCND1 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 KCND1 purchase	MBS6312346 is an antibody targeting KCND1. Also known as KCND1, NT (KCND1, Potassium voltage-gated channel subfamily D member 1, Voltage-gated potassium channel subunit Kv4.1) (AP). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-KCND1 antibody
KCND1 Antibody (N-term) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the KCND1 antibody detected the KCND1 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KCND1. It may not necessarily be applicable to this product.

NCBI GI #	27436981
NCBI GeneID	3750
NCBI Accession #	NP_004970.3
UniProt Primary Accession #	Q9NSA2
UniProt Secondary Accession #	O75671; B2RCG0
UniProt Related Accession #	Q9NSA2
GenBank Nucleotide #	NM_004979.4
NCBI Official Full Name	potassium voltage-gated channel subfamily D member 1
NCBI Official Synonym Full Names	potassium voltage-gated channel, Shal-related subfamily, member 1
NCBI Official Symbol	KCND1
NCBI Official Synonym Symbols	KV4.1
UniProt Protein Name	Potassium voltage-gated channel subfamily D member 1
UniProt Synonym Protein Names	Voltage-gated potassium channel subunit Kv4.1
Protein Family	Potassium voltage-gated channel subfamily
UniProt Gene Name	KCND1
UniProt Entry Name	KCND1_HUMAN
NCBI Protein Information	potassium voltage-gated channel subfamily D member 1; shal-type potassium channel; voltage-gated potassium channel Kv4.1; voltage-gated potassium channel subunit Kv4.1

NCBI Summary for KCND1	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 gene is expressed at moderate levels in all tissues analyzed, with lower levels in skeletal muscle. [provided by RefSeq, Jul 2008]
UniProt Comments for KCND1	KCND1: 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. Belongs to the potassium channel family. D (Shal) (TC 1.A.1.2) subfamily. Kv4.1/KCND1 sub-subfamily. Protein type: Membrane protein, multi-pass; Membrane protein, integral Chromosomal Location of Human Ortholog: Xp11.23 Cellular Component: voltage-gated potassium channel complex; cell soma; dendrite; integral to membrane; plasma membrane Molecular Function: delayed rectifier potassium channel activity; metal ion binding Biological Process: synaptic transmission; protein homooligomerization
Research Articles on KCND1	**1.** These results demonstrated that Kv4.1 plays a role in proliferation of tumorigenic human mammary epithelial cells.
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