

KCNE3 Rabbit pAb

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Catalog # AP54587

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9Y6H6
Predicted	Rat, Pig, Dog, Human, Mouse, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	11710
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KCNE3
Epitope Specificity	51-103/103
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell Membrane
DISEASE	Defects in KCNE3 are the cause of Brugada syndrome type 6 (BRGDA6) [MIM:613119]. A tachyarrhythmia characterized by right bundle branch block and ST segment elevation on an electrocardiogram (ECG). It can cause the ventricles to beat so fast that the blood is prevented from circulating efficiently in the body. When this situation occurs (called ventricular fibrillation), the individual will faint and may die in a few minutes if the heart is not reset.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. This gene encodes a member of the potassium channel, voltage-gated, Isk-related subfamily. This member is a type I membrane protein, and a beta subunit that assembles with a potassium channel alpha-subunit to modulate the gating kinetics and enhance stability of the multimeric complex. This gene is prominently expressed in the kidney. A missense mutation in this gene is associated with hypokalemic periodic paralysis. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	10008
Other Names	Potassium voltage-gated channel subfamily E member 3, MinK-related peptide 2, MiRP2, Minimum potassium ion channel-related peptide 2, Potassium channel subunit beta MiRP2, KCNE3 (HGNC:6243)

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	KCNE3 (HGNC:6243)
Function	Ancillary protein that functions as a regulatory subunit of the voltage-gated potassium (Kv) channel complex composed of pore- forming and potassium-conducting alpha subunits and of regulatory beta subunits. KCNE3 beta subunit modulates the gating kinetics and enhances stability of the channel complex (PubMed: 10646604 , PubMed: 11207363 , PubMed: 12954870). Alters the gating of the delayed rectifier Kv channel containing KCNB1 alpha subunit (PubMed: 12954870). Associates with KCNC4/Kv3.4 alpha subunit to form the subthreshold Kv channel in skeletal muscle and to establish the resting membrane potential (RMP) in muscle cells (PubMed: 11207363). Association with KCNQ1/KCLQT1 alpha subunit may form the intestinal cAMP-stimulated potassium channel involved in chloride secretion that produces a current with nearly instantaneous activation with a linear current-voltage relationship (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cytoplasm. Perikaryon. Cell projection, dendrite. Membrane raft. Note=Colocalizes with KCNB1 at high- density somatodendritic clusters on the surface of hippocampal neurons
Tissue Location	Expressed in hippocampal neurons (at protein level) (PubMed:12954870). Widely expressed with highest levels in kidney and moderate levels in small intestine.

Background

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