

Anti-KCND1 Picoband Antibody

Catalog # ABO11947

Product Information

Application	WB
Primary Accession	Q9NSA2
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Potassium voltage-gated channel subfamily D member 1(KCND1) detection. Tested with WB in Human;Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3750
Other Names	Potassium voltage-gated channel subfamily D member 1, Voltage-gated potassium channel subunit Kv4.1, KCND1
Calculated MW	71330
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse
Subcellular Localization	Membrane; Multi-pass membrane protein. Cell projection, dendrite .
Tissue Specificity	Widely expressed. Highly expressed in brain, in particular in cerebellum and thalamus; detected at lower levels in the other parts of the brain. .
Source	Eukaryota
Protein Name	Potassium voltage-gated channel subfamily D member 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human KCND1 recombinant protein (Position: T442-L647). Human KCND1 shares 90% amino acid (aa) sequence identity with mouse KCND1.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated

freezing and thawing.

Protein Information

Name	KCND1 (HGNC:6237)
Function	A-type voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes in the brain (PubMed: 15454437). Mediates A-type current I(SA) in suprachiasmatic nucleus (SCN) neurons. Exhibits a low-threshold A-type current with a hyperpolarized steady-state inactivation midpoint and the recovery process was steeply voltage-dependent, with recovery being markedly faster at more negative potentials. May regulates repetitive firing rates in the suprachiasmatic nucleus (SCN) neurons and circadian rhythms in neuronal excitability and behavior. Contributes to the regulation of the circadian rhythm of action potential firing in suprachiasmatic nucleus neurons, which regulates the circadian rhythm of locomotor activity. The regulatory subunit KCNIP1 modulates the kinetics of channel inactivation, increases the current amplitudes and accelerates recovery from inactivation, shifts activation in a depolarizing direction (By similarity). The regulatory subunit DPP10 decreases the voltage sensitivity of the inactivation channel gating (PubMed: 15454437).
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:Q9NZV8}; Multi-pass membrane protein {ECO:0000250 UniProtKB:Q9NZV8}
Tissue Location	Widely expressed. Highly expressed in brain, in particular in cerebellum and thalamus; detected at lower levels in the other parts of the brain.

Background

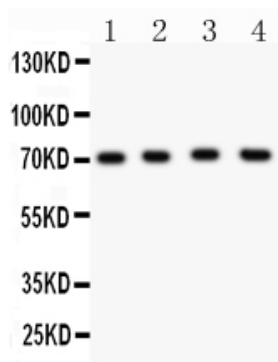
Potassium voltage-gated channel, Shal-related subfamily, member 1 (KCND1), also known as Kv4.1, is a human gene. It is mapped to Xp11.23. KCND1 encodes a member of the potassium channel, voltage-gated, shal-related subfamily, members of which form voltage-activated A-type potassium ion channels and are prominent in the repolarization phase of the action potential. The diverse functions of Voltage-gated potassium (Kv) channels include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. In addition to that, KCND1 is expressed at moderate levels in all tissues analyzed, with lower levels in skeletal muscle.

Images



Anti- KCND1 Picoband antibody, ABO11947, Western blottingAll lanes: Anti KCND1 (ABO11947) at 0.5ug/mlWB: Recombinant Human KCND1 Protein 0.5ngPredicted bind size: 39KDObserved bind size: 39KD

Anti- KCND1 Picoband antibody, ABO11947, Western blottingAll lanes: Anti KCND1 (ABO11947) at 0.5ug/mlLane 1: Mouse Brain Tissue Lysate at 50ugLane



2: HELA Whole Cell Lysate at 40ug
Lane 3: COLO320 Whole Cell Lysate at 40ug
Lane 4: A549 Whole Cell Lysate at 40ug
Predicted bind size: 71KD
Observed bind size: 71KD

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