Datasheet for ABIN7163978

anti-KCND2 antibody (AA 501-630)

1 Image

Go to Product page

Overview

Quantity:	100 µL
Target:	KCND2
Binding Specificity:	AA 501-630
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This KCND2 antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA

Product Details

Immunogen:	Recombinant Human Potassium voltage-gated channel subfamily D member 2 protein (501-630AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antigen Affinity Purified

Target Details

Target:	KCND2
Alternative Name:	KCND2 (KCND2 Products)
Background:	Background: Voltage-gated potassium channel that mediates transmembrane potassium

transport in excitable membranes, primarily in the brain. Mediates the major part of the dendritic A-type current I(SA) in brain neurons (By similarity). This current is activated at membrane potentials that are below the threshold for action potentials. It regulates neuronal excitability, prolongs the latency before the first spike in a series of action potentials, regulates the frequency of repetitive action potential firing, shortens the duration of action potentials and regulates the back-propagation of action potentials from the neuronal cell body to the dendrites. Contributes to the regulation of the circadian rhytm of action potential firing in suprachiasmatic nucleus neurons, which regulates the circadian rhythm of locomotor activity (By similarity). Functions downstream of the metabotropic glutamate receptor GRM5 and plays a role in neuronal excitability and in nociception mediated by activation of GRM5 (By similarity). Mediates the transient outward current I(to) in rodent heart left ventricle apex cells, but not in human heart, where this current is mediated by another family member. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochemical gradient (PubMed:10551270, PubMed:15454437, PubMed:14695263, PubMed:14623880, PubMed:14980201, PubMed:16934482, PubMed:24811166, PubMed:24501278). The channel alternates between opened and closed conformations in response to the voltage difference across the membrane (PubMed:11507158). Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCND2 and KCND3, channel properties depend on the type of pore-forming alpha subunits that are part of the channel. In vivo, membranes probably contain a mixture of heteromeric potassium channel complexes. Interaction with specific isoforms of the regulatory subunits KCNIP1, KCNIP2, KCNIP3 or KCNIP4 strongly increases expression at the cell surface and thereby increases channel activity, it modulates the kinetics of channel activation and inactivation, shifts the threshold for channel activation to more negative voltage values, shifts the threshold for inactivation to less negative voltages and accelerates recovery after inactivation (PubMed:15454437, PubMed:14623880, PubMed:14980201, PubMed:19171772, PubMed:24501278, PubMed:24811166). Likewise, interaction with DPP6 or DPP10 promotes expression at the cell membrane and regulates both channel characteristics and activity (By similarity).

Aliases: KCD2 antibody, KCND 2 antibody, KCND2 antibody, KCND2_HUMAN antibody, KIAA1044 antibody, MGC119702 antibody, MGC119703 antibody, Potassium voltage gated channel Shal related subfamily member 2 antibody, Potassium voltage-gated channel subfamily D member 2 antibody, RK 5 antibody, RK5 antibody, Voltage gated potassium channel Kv4.2 antibody, Voltage gated potassium channel subunit Kv4.2 antibody, Voltage sensitive potassium channel antibody, Voltage-gated potassium channel subunit Kv4.2 antibody

Target Details

UniProt:	Q9NZV8

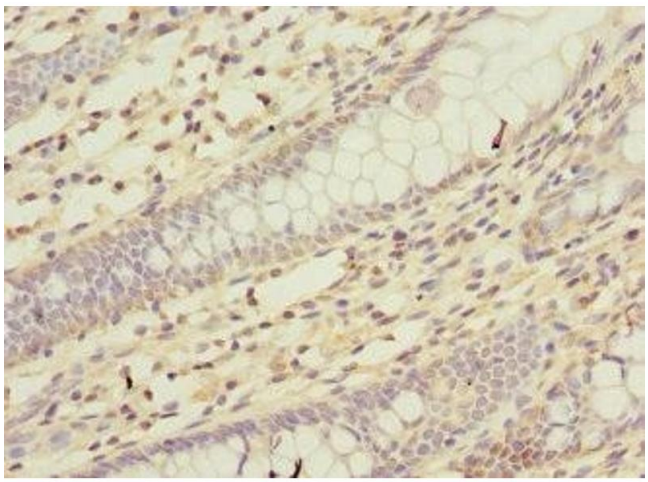
Application Details

Application Notes:	Recommended dilution: IHC:1:20-1:200,
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide, 50 % glycerol, pH 7.3.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunohistochemistry

Image 1. Immunohistochemistry of paraffin-embedded human colon cancer using ABIN7163978 at dilution of 1:100