

Datasheet for ABIN5713576

**KCND2 Protein (AA 406-630, Cytoplasmic Domain, Cytosolic)
(His tag)**[Go to Product page](#)**1** Image

Overview

Quantity:	100 µg
Target:	KCND2
Protein Characteristics:	AA 406-630, Cytosolic, Cytoplasmic Domain
Origin:	Human
Source:	Yeast
Protein Type:	Recombinant
Purification tag / Conjugate:	This KCND2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	VSNFSRIYHQ NQRADKRRQA KKARLARIRA AKSGSANAYM QSKRNGLLSN QLQSSSEDEQA FVSKSGSSFE TQHHHLLHCL EKTTNHEFVD EQVFEESCME VATVNRPSSH SPSLSSQQGV TSTCCSRRHK KTFRIPNANV SGSHQGSIQE LSTIQIRCVE RTPLSNSRSS LNAKMEECVK LNCEQPYVTT AIISIPTPPV TTPEGDDRPE SPEYSGGNIV RVSAL
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

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

Target Details

mbranes, primarily in the brain. Mediates the major part of the dendritic A-type current I(SA) in brain neurons . This current is activated at mbrane 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 rhythm of action potential firing in suprachiasmatic nucleus neurons, which regulates the circadian rhythm of locomotor activity . Functions downstream of the metabotropic glutamate receptor GRM5 and plays a role in neuronal excitability and in nociception mediated by activation of GRM5 . 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 mber. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochical gradient . The channel alternates between opened and closed conformations in response to the voltage difference across the mbrane . 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, mbranes 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 . Likewise, interaction with DPP6 or DPP10 promotes expression at the cell mbrane and regulates both channel characteristics and activity .

Molecular Weight:	27 kDa
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UniProt:	Q9NZV8
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Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
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Restrictions:	For Research Use only
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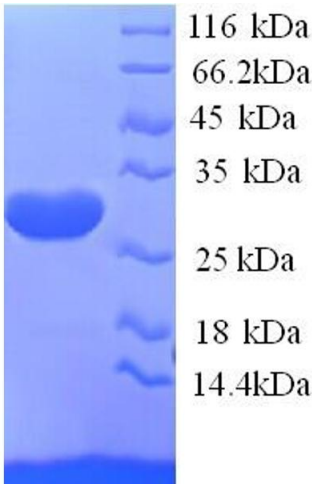
Handling

Format:	Liquid
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Handling

Concentration:	0.1-2 mg/mL
Buffer:	20 mM Tris-HCl based buffer, pH 8.0
Storage:	-80 °C,4 °C,-20 °C
Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



SDS-PAGE

Image 1.