

KChIP2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59257

Specification

KChIP2 Polyclonal Antibody - Product Information

Application WB, IHC-P, IHC-F, IF, E

Primary Accession

Reactivity

Host

Clonality

Calculated MW

One of the property of the prop

Calculated MW 31 KDa
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived

from human KChIP2

Epitope Specificity 1-100/270 Isotype IgG

Isotype
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.

SIMILARITY Belongs to the recoverin family. Contains 4

EF-hand domains.

SUBUNIT

Component of heteromultimeric potassium channels. The KCND2-KCNIP2 channel complex contains four KCND2 and four

KCNIP2 subunits. Interacts with KCND2. Isoform 1 and isoform 3 interact with KCND3 isoform 1. Probably part of a complex consisting of KCNIP1, KCNIP2 isoform 3 and KCND2. At least isoform 2 and isoform 3 can self-associate to form homodimers and homotetramers. Isoform 3

interacts with KCNIP1 in a calcium-dependent manner.

Post-translational modifications Palmitoylated. Palmitoylation enhances

association with the plasma membrane (By

similarity).

Important Note

This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

Background Descriptions

The downstream regulatory element, DRE, acts as a location-dependent gene silencer. DREAM (for DRE-antagonist modulator) is a Ca2+-regulated transcriptional repressor that specifically binds to the DRE. DREAM regulates transcription of prodynorphin and c-Fos genes and shows 99% nucleotide homology to the Kv channel-interacting proteins (KChIPs). KChIP family members include KChIP1, which is expressed in brain, KChIP2, which is expressed in heart, brain, and lung, KChIP3 (also designated calsenilin), which is expressed in brain and testis and KChIP4.



KChIP2 Polyclonal Antibody - Additional Information

Gene ID 30819

Other Names

Kv channel-interacting protein 2, KChIP2, A-type potassium channel modulatory protein 2, Cardiac voltage-gated potassium channel modulatory subunit, Potassium channel-interacting protein 2, KCNIP2, KCHIP2

Target/Specificity

Expressed in brain. Colocalizes with KCND2 in excitatory neurons including cortical and hippocampal CA1 pyramidal cells. Isoform 3 is expressed in heart and in umbilical vein endothelial cells. Not expressed in fetal heart.

Dilution

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<span class ="dilution_WB">WB~~1:1000</span><br \><span class
="dilution_IHC-P">IHC-P~~N/A</span><br \><span class
="dilution_IHC-F">IHC-F~~N/A</span><br \><span class
="dilution_IF">IF~~1:50~200</span><br \><span class ="dilution_E">E~~N/A</span>
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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.

KChIP2 Polyclonal Antibody - Protein Information

Name KCNIP2 (HGNC:15522)

Function

Regulatory subunit of Kv4/D (Shal)-type voltage-gated rapidly inactivating A-type potassium channels (PubMed: 10676964, PubMed:11287421, PubMed:11684073, PubMed:12297301, PubMed:14623880, PubMed:34997220). Modulates channel density, inactivation kinetics and rate of recovery from inactivation in a calcium-dependent and isoform- specific manner (PubMed: 10676964, PubMed:11287421, PubMed:11684073, PubMed:12297301, PubMed:14623880, PubMed:34997220). Involved in KCND2 and KCND3 trafficking to the cell surface (PubMed:12829703). May be required for the expression of I(To) currents in the heart (By similarity).

Cellular Location

[Isoform 1]: Cell membrane {ECO:0000250|UniProtKB:Q9JM59}; Lipid-anchor {ECO:0000250|UniProtKB:Q9JM59}. Note=Detected on lipid rafts (By similarity). {ECO:0000250|UniProtKB:Q9JM59} [Isoform 6]: Cell membrane {ECO:0000250|UniProtKB:Q9JM59}; Lipid-anchor {ECO:0000250|UniProtKB:Q9JM59}



Tissue Location

Expressed in brain. Colocalizes with KCND2 in excitatory neurons including cortical and hippocampal CA1 pyramidal cells. Isoform 3 is expressed in heart and in umbilical vein endothelial cells. Not expressed in fetal heart

KChIP2 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

KChIP2 Polyclonal Antibody - Images