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KChIP2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59257

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9NS61
Reactivity	Rat, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30907
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KChIP2
Epitope Specificity	1-100/270
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.
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.

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	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	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