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KCNJ4 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12298a

Product Information

Application	WB, E
Primary Accession	P48050
Other Accession	P52190, P52189, NP_690607.1, NP_004972.1
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31068
Calculated MW	49500
Antigen Region	1-30

Additional Information

Gene ID	3761
Other Names	Inward rectifier potassium channel 4, HIRK2, HRK1, Hippocampal inward rectifier, HIR, Inward rectifier K(+) channel Kir23, IRK-3, Potassium channel, inwardly rectifying subfamily J member 4, KCNJ4, IRK3
Target/Specificity	This KCNJ4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human KCNJ4.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	KCNJ4 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KCNJ4
Synonyms	IRK3

Function	Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it. Their voltage dependence is regulated by the concentration of extracellular potassium; as external potassium is raised, the voltage range of the channel opening shifts to more positive voltages. The inward rectification is mainly due to the blockage of outward current by internal magnesium. Can be blocked by extracellular barium and cesium.
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P52189}; Multi-pass membrane protein. Postsynaptic cell membrane {ECO:0000250|UniProtKB:P52189}; Multi-pass membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:P52189}. Note=TAX1BP3 binding promotes dissociation of KCNJ4 from LIN7 famaly members and KCNJ4 internalization. {ECO:0000250|UniProtKB:P52189}
Tissue Location	Heart, skeletal muscle, and several different brain regions including the hippocampus

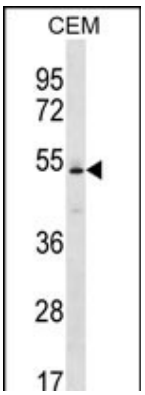
Background

Several different potassium channels are known to be involved with electrical signaling in the nervous system. One class is activated by depolarization whereas a second class is not. The latter are referred to as inwardly rectifying K+ channels, and they have a greater tendency to allow potassium to flow into the cell rather than out of it. This asymmetry in potassium ion conductance plays a key role in the excitability of muscle cells and neurons. The protein encoded by this gene is an integral membrane protein and member of the inward rectifier potassium channel family. The encoded protein has a small unitary conductance compared to other members of this protein family. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq].

References

Yokoyama, K., et al. Nephron Clin Pract 115 (4), C237-C243 (2010) :
Yan, X., et al. J. Mol. Biol. 392(4):967-976(2009)
He, Y., et al. FEBS Lett. 582(15):2338-2342(2008)
Ji, W., et al. Nat. Genet. 40(5):592-599(2008)
Ureche, O.N., et al. Cell. Physiol. Biochem. 21 (5-6), 347-356 (2008) :

Images



KCNJ4 Antibody (N-term) (Cat. #AP12298a) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the KCNJ4 antibody detected the KCNJ4 protein (arrow).