

Kir4.1 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51735

Specification

Kir4.1 Antibody - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Calculated MW

WB, E
P78508
Human, Mouse, Rat
Rabbit
Polyclonal
42 KDa

Kir4.1 Antibody - Additional Information

Gene ID 3766

Other Names

ATP-sensitive inward rectifier potassium channel 10, ATP-dependent inwardly rectifying potassium channel Kir41, Inward rectifier K(+) channel Kir12, Potassium channel, inwardly rectifying subfamily J member 10, KCNJ10

Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Kir4.1. The exact sequence is proprietary.

Dilution

WB~~1:1000 E~~N/A

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Kir4.1 Antibody - Protein Information

Name KCNJ10 (HGNC:6256)

Function

May be responsible for potassium buffering action of glial cells in the brain (By similarity). Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it (PubMed:8995301). 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 (PubMed:8995301). The inward rectification is mainly due to the blockage of outward



current by internal magnesium. Can be blocked by extracellular barium and cesium (PubMed:8995301). In the kidney, together with KCNJ16, mediates basolateral K(+) recycling in distal tubules; this process is critical for Na(+) reabsorption at the tubules (PubMed:24561201).

Cellular Location

Membrane; Multi- pass membrane protein. Basolateral cell membrane. Note=In kidney distal convoluted tubules, located in the basolateral membrane where it colocalizes with KCNJ16.

Tissue Location

Expressed in kidney (at protein level) (PubMed:24561201). In the nephron, expressed in the distal convoluted tubule, the connecting tubule, the collecting duct and cortical thick ascending limbs (PubMed:20651251).

Kir4.1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Kir4.1 Antibody - Images

Kir4.1 Antibody - Background

May be responsible for potassium buffering action of glial cells in the brain. 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 (By similarity).

Kir4.1 Antibody - References

Shuck M.E.,et al.J. Biol. Chem. 272:586-593(1997). Schoots O.,et al.Cell. Signal. 11:871-883(1999). Gregory S.G.,et al.Nature 441:315-321(2006). Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases. Bockenhauer D.,et al.N. Engl. J. Med. 360:1960-1970(2009).