

Product datasheet

Anti-Kir4.1/KCNJ10 antibody ab240876

[2 References](#) [3 Images](#)

Overview

Product name	Anti-Kir4.1/KCNJ10 antibody
Description	Rabbit polyclonal to Kir4.1/KCNJ10
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Rat, Human
Immunogen	Synthetic peptide corresponding to Human Kir4.1/KCNJ10. (from the mid-protein) Database link: P78508
Positive control	ICC/IF: RKO cells. WB: Rat liver lysate. IHC: Human kidney
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab240876 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/50.
WB		Use a concentration of 1 µg/ml.
ICC/IF		1/100.

Target

Function

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). In the kidney, together with KCNJ16, mediates basolateral K(+) recycling in distal tubules; this process is critical for Na(+) reabsorption at the tubules.

Tissue specificity

Expressed in kidney (at protein level).

Involvement in disease

Seizures, sensorineural deafness, ataxia, mental retardation, and electrolyte imbalance

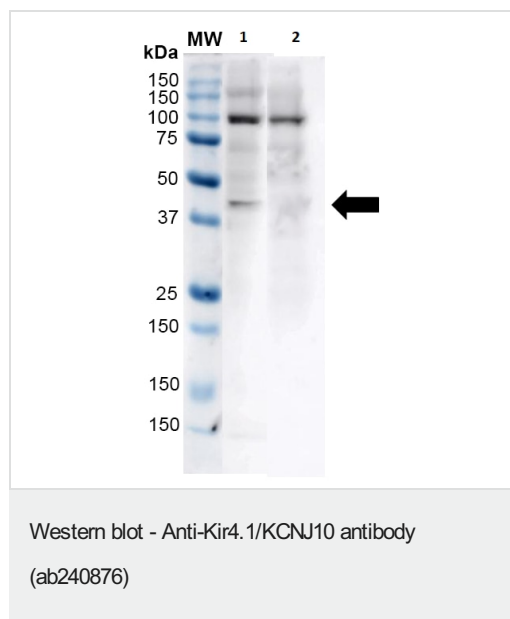
Sequence similarities

Belongs to the inward rectifier-type potassium channel (TC 1.A.2.1) family. KCNJ10 subfamily.

Cellular localization

Membrane. Basolateral cell membrane. In kidney distal convoluted tubules, located in the basolateral membrane where it colocalizes with KCNJ16.

Images



Lane 1 : Anti-Kir4.1/KCNJ10 antibody (ab240876) at 1 µg/ml

Lane 2 : None, TBST only

All lanes : Rat liver, no heat

Lysates/proteins at 15 µg per lane.

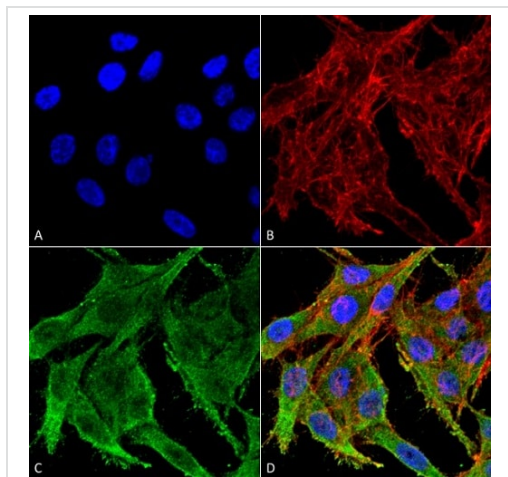
Secondary

All lanes : Goat Anti-Rabbit IgG:HRP at 1/4000 dilution

Exposure time: 1 minute

Blocking Buffer: 5% Skim milk in TBST, incubated 1h at RT.

12% SDS-PAGE.

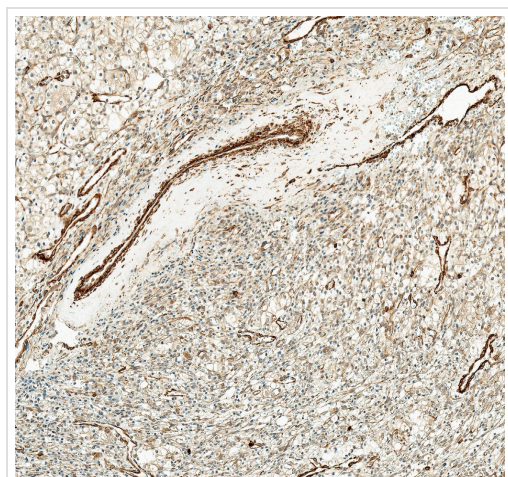


Immunocytochemistry/ Immunofluorescence - Anti-Kir4.1/KCNJ10 antibody (ab240876)

Immunocytochemistry/Immunofluorescence analysis of RKO (human colon carcinoma cell line) cells labeling Kir4.1/KCNJ10 using ab240876 (green) at 1/100 for 60 minutes at RT. Cells were fixed in 4% formaldehyde for 15 minutes at RT.

Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1/1000, 1/5000 for 60 min RT, 5 min RT.

(A) DAPI (blue) nuclear stain **(B)** Phalloidin Texas Red F-Actin stain **(C)** ab240876 **(D)** Composite.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kir4.1/KCNJ10 antibody (ab240876)

Immunohistochemistry of human kidney tissue staining Kir4.1/KCNJ10 using ab240876 at (1/50) for 30 min at room temperature.

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