abcam

Product datasheet

Anti-Kir2.1/KCNJ2 antibody [EPR4530] ab109750

Recombinant RabMAb

1 Abreviews 8 References 4 Images

Overview

Product name	Anti-Kir2.1/KCNJ2 antibody [EPR4530]
Description	Rabbit monoclonal [EPR4530] to Kir2.1/KCNJ2
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P **Unsuitable for:** Flow Cyt or IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	293T and A549 cell lysates; Human brain tissue; SH SY5Y cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4530

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109750 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
ICC/IF	★☆☆☆☆ (1)	1/100 - 1/250.
WB		1/1000 - 1/10000. Predicted molecular weight: 48 kDa.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt or IP.

Target

Function Probably participates in establishing action potential waveform and excitability of neuronal and muscle tissues. 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 or cesium.

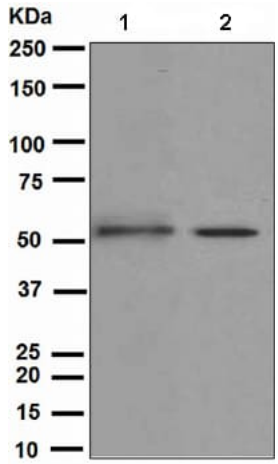
Tissue specificity Heart, brain, placenta, lung, skeletal muscle, and kidney. Diffusely distributed throughout the brain.

Involvement in disease Defects in KCNJ2 are the cause of long QT syndrome type 7 (LQT7) [MIM:170390]; also called Andersen syndrome or Andersen cardiodysrhythmic periodic paralysis. Long QT syndromes are heart disorders characterized by a prolonged QT interval on the ECG and polymorphic ventricular arrhythmias. They cause syncope and sudden death in response to excercise or emotional stress. LQT7 manifests itself as a clinical triad consisting of potassium-sensitive periodic paralysis, ventricular ectopy and dysmorphic features.
Defects in KCNJ2 are the cause of short QT syndrome type 3 (SQT3) [MIM:609622]. Short QT syndromes are heart disorders characterized by idiopathic persistently and uniformly short QT interval on ECG in the absence of structural heart disease in affected individuals. They cause syncope and sudden death. SQT3 has a unique ECG phenotype characterized by asymmetrical T waves.

Sequence similarities Belongs to the inward rectifier-type potassium channel (TC 1.A.2.1) family. KCNJ2 subfamily.

Cellular localization Membrane.

Images



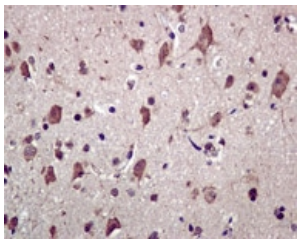
Western blot - Anti-Kir2.1/KCNJ2 antibody [EPR4530] (ab109750)

All lanes : Anti-Kir2.1/KCNJ2 antibody [EPR4530] (ab109750) at 1/1000 dilution

Lane 1 : 293T cell lysate
Lane 2 : A549 cell lysate

Lysates/proteins at 10 µg per lane.

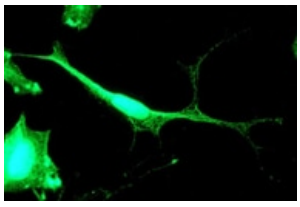
Predicted band size: 48 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kir2.1/KCNJ2 antibody [EPR4530] (ab109750)

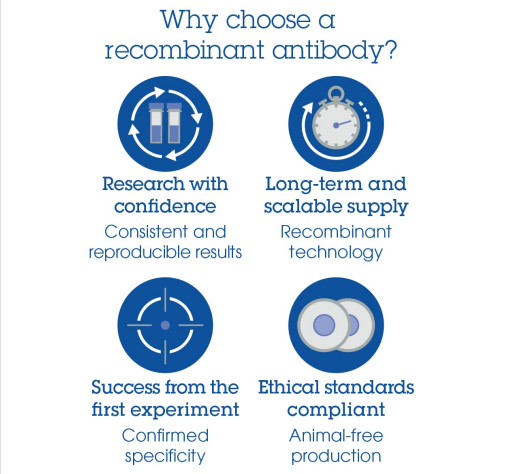
ab109750 at 1/250 dilution staining Kir2.1/KCNJ2 in Human brain by Immunohistochemistry, Paraffin-embedded tissue.

Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Kir2.1/KCNJ2 antibody [EPR4530] (ab109750)

ab109750 at 1/100 dilution staining Kir2.1/KCNJ2 in SH SY5Y cells by Immunofluorescence.



Anti-Kir2.1/KCNJ2 antibody [EPR4530] (ab109750)

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