Mouse anti-Mouse, Rat Kir2.1 Monoclonal Antibody | anti-Kcnj2 antibody

Kir2.1 Antibody: ATTO 488

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103468	**Mouse**	**Mouse, Rat**	**Immunofluorescence, Immunocytochemistry, Western Blot**

PRODUCT SYNONYMS

Kir2.1; Monoclonal Antibody; Kir2.1 Antibody: ATTO 488; HHBIRK1; HHIRK1; HIRK 1; IRK1; KCNJ2; LQT7; SQT3; potassium inwardly rectifying channel J2; anti-Kcnj2 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Mouse, Rat
Clonality	Monoclonal
Isotype	IgG1
Clone Number	S112B-14
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	428
Applicable Applications for anti-Kcnj2 antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Conjugate	ATTO 488
Storage Buffer	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

IMAGES

IHC (Immunohistochemisry)
Immunohistochemistry analysis using Mouse Anti-Kir2.1 Potassium Channel Monoclonal Antibody, Clone S112B-14. Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Kir2.1 Potassium Channel Monoclonal Antibody at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.

WB (Western Blot)
Western Blot analysis of Monkey COS transient cell lysate showing detection of Kir2.1 Potassium Channel protein using Mouse Anti-Kir2.1 Potassium Channel Monoclonal Antibody, Clone S112B-14. Load: 15 ug. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Kir2.1 Potassium Channel Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

IHC (Immunohistochemistry)
Immunohistochemistry analysis using Mouse Anti-Kir2.1 Potassium Channel Monoclonal Antibody, Clone S112B-14. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Kir2.1 Potassium Channel Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Nuclear expression in the epidermis and hair follicles.

ADDITIONAL INFORMATION

Related Product Information for anti-Kcnj2 antibody	**Background Info:** Detects ~55kDa. No cross-reactivity against Kir2.2 or Kir2.3 **Scientific Background:** Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient (1). They are present in the membranes that surround all biological cells because their main function is to regulate the flow of ions across this membrane. Whereas some ion channels permit the passage of ions based on charge, others conduct based on a ionic species, such as sodium or potassium. Furthermore, in some ion channels, the passage is governed by a gate which is controlled by chemical or electrical signals, temperature, or mechanical forces. There are a few main classifications of gated ion channels. There are voltage- gated ion channels, ligand-gated, other gating systems and finally those that are classified differently, having more exotic characteristics. The first are voltage- gated ion channels which open and close in response to membrane potential. These are then separated into sodium, calcium, potassium, proton, transient receptor, and cyclic nucleotide-gated channels; each of which is responsible for a unique role. Ligand-gated ion channels are also known as ionotropic receptors, and they open in response to specific ligand molecules binding to the extracellular domain of the receptor protein. The other gated classifications include activation and inactivation by second messengers, inward-rectifier potassium channels, calcium-activated potassium channels, two-pore-domain potassium channels, light-gated channels, mechano-sensitive ion channels and cyclic nucleotide-gated channels. Finally, the other classifications are based on less normal characteristics such as two-pore channels, and transient receptor potential channels (2). The Kir2.1 inward-rectifier potassium ion channel is encoded by the KCNJ2 gene. A defect in this gene is associated with Andersen-Tawil syndrome (3).
Product Categories/Family for anti-Kcnj2 antibody	Ion Channels; Neuroscience
References	1. Hille B. (2001) Ion Channels of Excitable Membranes, 3rd Ed., Sinauer Associated Inc.: Sunderland, MA USA. 2. www.iochannels.org 3. Donaldson M.R., Yoon G., Fu Y.H., Ptacek L.J. (2004). Ann. Med. 36 Suppl 1: 92-7.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6680530
NCBI GeneID	16518
NCBI Accession #	NP_032451
NCBI GenBank Nucleotide #	NM_008425.4
UniProt Accession #	P35561
Molecular Weight	48,389 Da
NCBI Official Full Name	inward rectifier potassium channel 2
NCBI Official Synonym Full Names	potassium inwardly-rectifying channel, subfamily J, member 2
NCBI Official Symbol	Kcnj2
NCBI Official Synonym Symbols	IRK1; Kcnf1; Kir2.1
NCBI Protein Information	inward rectifier potassium channel 2; IRK-1; inward rectifier K(+) channel Kir2.1; potassium channel, inwardly rectifying subfamily J member 2

UniProt Protein Name	Inward rectifier potassium channel 2
UniProt Gene Name	**Kcnj2**
UniProt Synonym Gene Names	Irk1; IRK-1
UniProt Entry Name	KCNJ2_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/kir21-antibody-clone-s112b-14-immunofluorescence-immunocytochemistry-western-blot-elisa/103468