

# KCNJ11 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP9209a

# **Product Information**

**Application** WB, FC, E **Primary Accession** Q14654

Other Accession002822, Q61743ReactivityHuman, Mouse

Predicted Rabbit
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB21238
Calculated MW 43526
Antigen Region 1-30

### **Additional Information**

Gene ID 3767

**Other Names** ATP-sensitive inward rectifier potassium channel 11, IKATP, Inward rectifier

K(+) channel Kir62, Potassium channel, inwardly rectifying subfamily J

member 11, KCNJ11

**Target/Specificity** This KCNJ11 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 1-30 amino acids from the N-terminal

region of human KCNJ11.

**Dilution** WB~~1:1000 FC~~1:10~50 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** KCNJ11 Antibody (N-term) is for research use only and not for use in

diagnostic or therapeutic procedures.

#### **Protein Information**

Name KCNJ11

**Function** Inward rectifier potassium channel that forms the pore of ATP-sensitive

potassium channels (KATP), regulating potassium permeability as a function of cytoplasmic ATP and ADP concentrations in many different cells (PubMed:29286281, PubMed:34815345). 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 (By similarity). In pancreatic cells, it forms KATP channels with ABCC8/SUR1 (PubMed:29286281, PubMed:34815345). Can form cardiac and smooth muscle-type KATP channels with ABCC9.

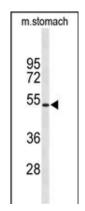
**Cellular Location** 

Membrane; Multi-pass membrane protein.

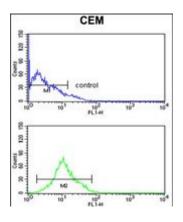
# **Background**

ATP-sensitive potassium (K(ATP)) channels are found in endocrine cells, neurons and both smooth and striated muscle, where they play an important role in controlling insulin secretion and vascular tone, and protect neurons under metabolic stress. Kir6.2 is a member of the inward rectifier potassium channel family, which is characterised by a greater tendency to allow potassium flow into the cell rather than out of it. It associates with the sulphonylurea receptor SUR1/ABCC8 to form a subfamily of K(ATP) channels that, when mutated or misregulated, are associated with forms of hyperinsulinemic hypoglycemia, neonatal diabetes, or pre-disposition to type 2 diabetes mellitus.

# **Images**



Western blot analysis of KCNJ11 Antibody (N-term) (Cat. #AP9209a) in mouse stomach tissue lysates (35ug/lane). KCNJ11 (arrow) was detected using the purified Pab.



KCNJ11 Antibody (N-term) (Cat. #AP9209a) flow cytometry analysis of CEM cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.