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Goat Anti-KCNJ11 / KATP / Antibody
Peptide-affinity purified goat antibody
Catalog # AF1585a

Specification

Goat Anti-KCNJ11 / KATP / Antibody - Product Information

Application	**WB, IHC, E**
Primary Accession	Q14654
Other Accession	NP_000516, 3767
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**43526**

Goat Anti-KCNJ11 / KATP / Antibody - Additional Information

Gene ID 3767

Other Names
ATP-sensitive inward rectifier potassium channel 11, IKATP, Inward rectifier K(+) channel Kir6.2, Potassium channel, inwardly rectifying subfamily J member 11, KCNJ11

Dilution
WB~~1:1000
IHC~~1:100~500
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-KCNJ11 / KATP / Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-KCNJ11 / KATP / Antibody - 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.

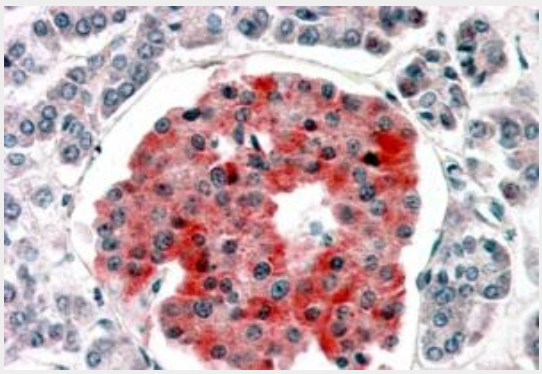
Cellular Location
Membrane; Multi-pass membrane protein.

Goat Anti-KCNJ11 / KATP / 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

Goat Anti-KCNJ11 / KATP / Antibody - Images



AF1585a (3.8 µg/ml) staining of paraffin embedded Human Pancreas. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

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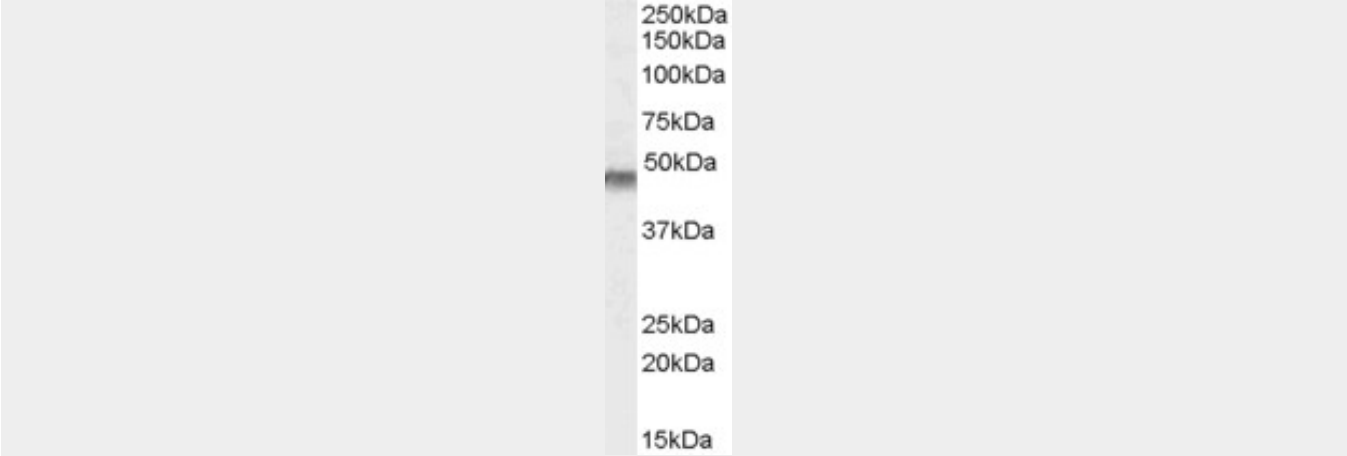

AF1585a (0.1 µg/ml) staining of Human Muscle lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-KCNJ11 / KATP / Antibody - Background

Potassium channels are present in most mammalian cells, where they participate in a wide range of physiologic responses. The protein encoded by this gene is an integral membrane protein and inward-rectifier type potassium channel. The encoded protein, which has a greater tendency to allow potassium to flow into a cell rather than out of a cell, is controlled by G-proteins and is found associated with the sulfonylurea receptor SUR. Mutations in this gene are a cause of familial persistent hyperinsulinemic hypoglycemia of infancy (PHHI), an autosomal recessive disorder characterized by unregulated insulin secretion. Defects in this gene may also contribute to autosomal dominant non-insulin-dependent diabetes mellitus type II (NIDDM), transient neonatal diabetes mellitus type 3 (TNDM3), and permanent neonatal diabetes mellitus (PNDM). Multiple alternatively spliced transcript variants that encode different protein isoforms have been described for this gene.

Goat Anti-KCNJ11 / KATP / Antibody - References

Glycemia determines the effect of type 2 diabetes risk genes on insulin secretion. Heni M, et al. Diabetes, 2010 Aug 29. PMID 20802253.
COMMON VARIANTS IN 40 GENES ASSESSED FOR DIABETES INCIDENCE AND RESPONSE TO METFORMIN AND LIFESTYLE INTERVENTIONS IN THE DIABETES PREVENTION PROGRAM. Jablonski KA, et al. Diabetes, 2010 Aug 3. PMID 20682687.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Coronary artery calcification and its relationship to validated genetic variants for diabetes mellitus assessed in the Heinz Nixdorf recall cohort. Pechlivanis S, et al. Arterioscler Thromb Vasc Biol, 2010 Sep. PMID 20616309.
A validation study of type 2 diabetes-related variants of the TCF7L2, HHEX, KCNJ11, and ADIPOQ genes in one endogamous ethnic group of north India. Gupta V, et al. Ann Hum Genet, 2010 Jul. PMID 20597906.