

ROM-K Polyclonal Antibody

Catalog No: YT4164

Reactivity: Human; Mouse; Rat

Applications: WB;IHC

Target: ROM-K

Fields: >>Aldosterone-regulated sodium reabsorption;>>Gastric acid secretion

Gene Name: KCNJ1

Protein Name: ATP-sensitive inward rectifier potassium channel 1

P48048

O88335

Human Gene Id: 3758

Human Swiss Prot

Tullian Swiss Froi

No:

Mouse Gene Id: 56379

Mouse Swiss Prot

No:

Rat Gene Id: 24521

Rat Swiss Prot No: P35560

Immunogen: The antiserum was produced against synthesized peptide derived from human

ROMK/Kir1.1. AA range:11-60

Specificity: ROM-K Polyclonal Antibody detects endogenous levels of ROM-K protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500-2000;IHC 1:50-300

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Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 45kD

Cell Pathway: Aldosterone-regulated sodium reabsorption;

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. It is activated by internal ATP and probably plays an important role in potassium homeostasis. The encoded protein has a greater tendency to allow potassium to flow into a cell rather than out of a cell. Mutations in this gene have been associated with antenatal Bartter syndrome, which is characterized by salt wasting, hypokalemic alkalosis, hypercalciuria, and low blood pressure. Multiple transcript variants encoding different isoforms have been found for this gene.

[provided by RefSeq, Jul 2008],

Function: disease:Defects in KCNJ1 are the cause of Bartter syndrome type 2 (BS2)

[MIM:241200]; also termed hyperprostanglandin E syndrome 2. BS refers to a

group of autosomal recessive disorders characterized by impaired salt

reabsorption in the thick ascending loop of Henle with pronounced salt wasting, hypokalemic metabolic alkalosis, and varying degrees of hypercalciuria. BS2 is a life-threatening condition beginning in utero, with marked fetal polyuria that leads to polyhydramnios and premature delivery. Another hallmark of BS2 is a marked

hypercalciuria and, as a secondary consequence, the development of

nephrocalcinosis and osteopenia.,function:In the kidney, probably plays a major

role in potassium homeostasis. 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

Subcellular Location:

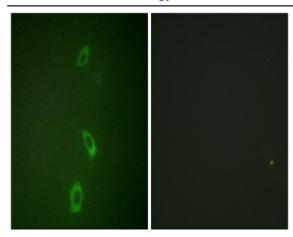
Cell membrane ; Multi-pass membrane protein . Phosphorylation at Ser-44 by

SGK1 is necessary for its expression at the cell membrane. .

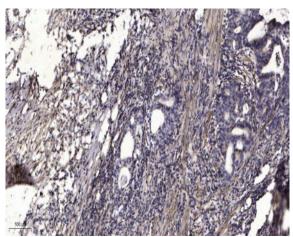
Expression: In the kidney and pancreatic islets. Lower levels in skeletal muscle, pancreas,

spleen, brain, heart and liver.

Products Images



Immunofluorescence analysis of A549 cells, using ROMK/Kir1.1 Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human Gastric adenocarcinoma. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).