Best Tools for immunology Research

ROM-K (phospho Ser44) Polyclonal Antibody

Catalog No :	YP1160
Reactivity :	Human;Mouse;Rat
Applications :	IHC;IF;ELISA
Target :	ROM-K
Fields :	>>Aldosterone-regulated sodium reabsorption;>>Gastric acid secretion
Gene Name :	KCNJ1
Protein Name :	ATP-sensitive inward rectifier potassium channel 1
Human Gene Id :	3758
Human Swiss Prot No :	P48048
Mouse Gene Id :	56379
Mouse Swiss Prot No :	O88335
Rat Gene Id :	24521
Rat Swiss Prot No :	P35560
Immunogen :	The antiserum was produced against synthesized peptide derived from human ROMK/Kir1.1 around the phosphorylation site of Ser44/25. AA range:11-60
Specificity :	Phospho-ROM-K (S44) Polyclonal Antibody detects endogenous levels of ROM-K protein only when phosphorylated at S44.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.

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;

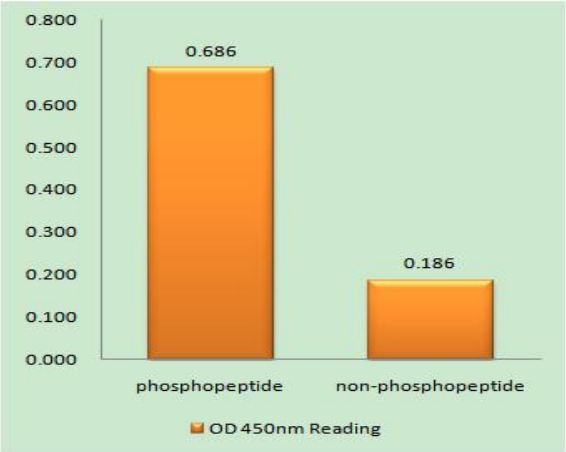
Background : Potassium channels are present in most mammalian cells, where they participate in a wide range of physiologic responses. The protein encoded by this gene is an integral membrane protein and inward-rectifier type potassium channel. It is activated by internal ATP and probably plays an important 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

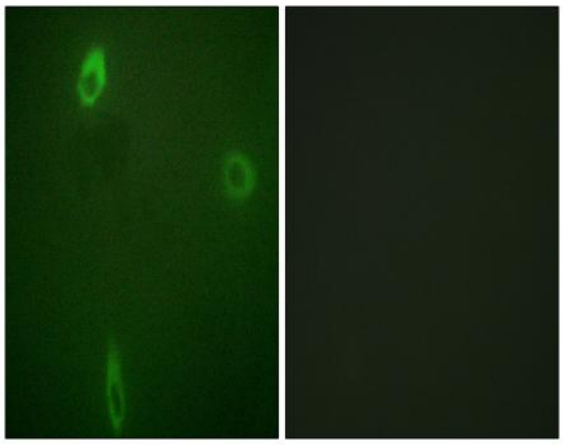
Subcellular Location : Cell membrane ; Multi-pass membrane protein . Phosphorylation at Ser-44 by SGK1 is necessary for its expression at the cell membrane. .

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

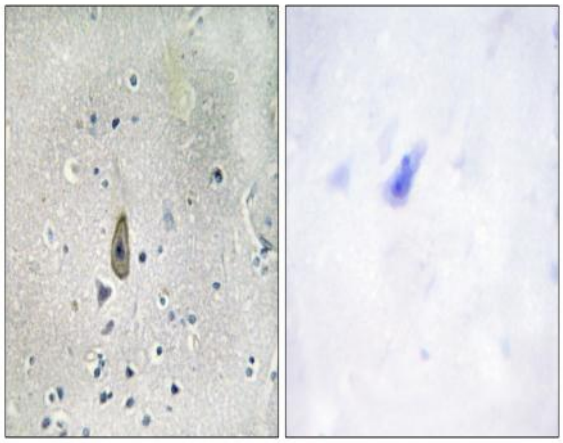
Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using ROMK/Kir1.1 (Phospho-Ser44/25) Antibody



Immunofluorescence analysis of A549 cells, using ROMK/Kir1.1 (Phospho-Ser44/25) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using ROMK/Kir1.1 (Phospho-Ser44/25) Antibody. The picture on the right is blocked with the phospho peptide.