



ROM-K (phospho Ser44) Polyclonal Antibody

Catalog No	YP-Ab-16363
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	IHC;IF;ELISA
Gene Name	KCNJ1
Protein Name	ATP-sensitive inward rectifier potassium channel 1
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
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	KCNJ1; ROMK1; ATP-sensitive inward rectifier potassium channel 1; ATP-regulated potassium channel ROM-K; Inward rectifier K(+) channel Kir1.1; Potassium channel; inwardly rectifying subfamily J member 1
Observed Band	
Cell Pathway	Cell membrane ; Multi-pass membrane protein . Phosphorylation at Ser-44 by SGK1 is necessary for its expression at the cell membrane. .
Tissue Specificity	In the kidney and pancreatic islets. Lower levels in skeletal muscle, pancreas, spleen, brain, heart and liver.
Function	disease:Defects in KCNJ1 are the cause of Bartter syndrome type 2 (BS2) [MIM:241200]; also termed hyperprostaglandin 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



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],

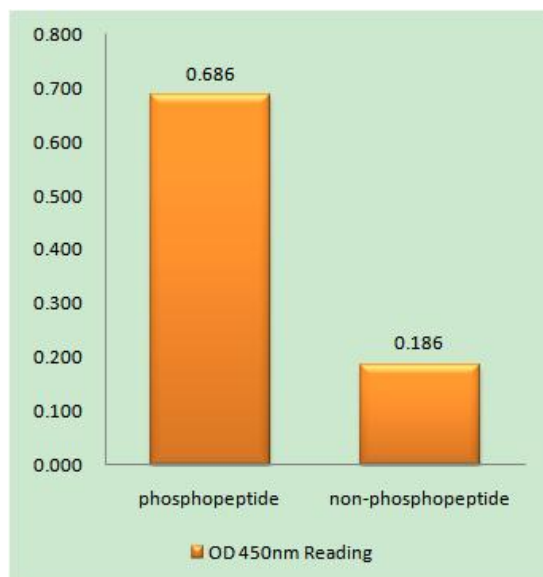
matters needing attention

Avoid repeated freezing and thawing!

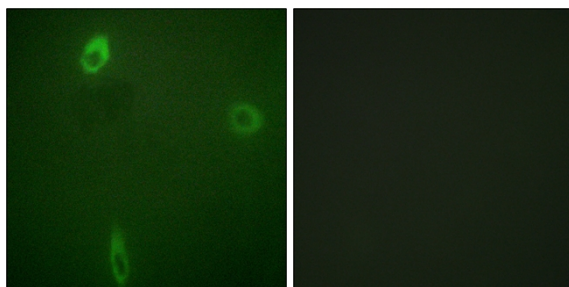
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

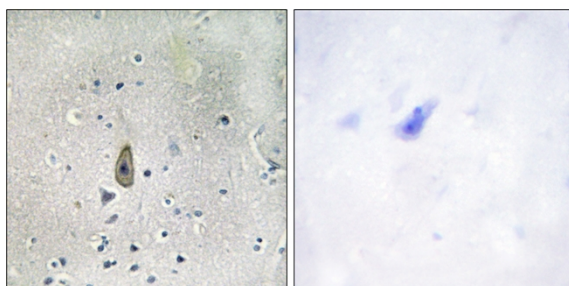
Products Images



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 phosphopeptide.



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