

PRKG1 Rabbit pAb

Catalog No.: A2565

3 Publications

Basic Information

Observed MW

65kDa

Calculated MW

76kDa

Category

Primary antibody

Applications

ELISA, WB

Cross-Reactivity

Human, Mouse

Background

Mammals have three different isoforms of cyclic GMP-dependent protein kinase (Ialpha, Ibeta, and II). These PRKG isoforms act as key mediators of the nitric oxide/cGMP signaling pathway and are important components of many signal transduction processes in diverse cell types. This PRKG1 gene on human chromosome 10 encodes the soluble Ialpha and Ibeta isoforms of PRKG by alternative transcript splicing. A separate gene on human chromosome 4, PRKG2, encodes the membrane-bound PRKG isoform II. The PRKG1 proteins play a central role in regulating cardiovascular and neuronal functions in addition to relaxing smooth muscle tone, preventing platelet aggregation, and modulating cell growth. This gene is most strongly expressed in all types of smooth muscle, platelets, cerebellar Purkinje cells, hippocampal neurons, and the lateral amygdala. Isoforms Ialpha and Ibeta have identical cGMP-binding and catalytic domains but differ in their leucine/isoleucine zipper and autoinhibitory sequences and therefore differ in their dimerization substrates and kinase enzyme activity.

Recommended Dilutions

WB 1:500 - 1:2000

Immunogen Information

Gene ID

5592

Swiss Prot

Q13976

Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 1-300 of human PRKG1 (NP_006249.1).

Synonyms

PKG; cGK; AAT8; PKG1; cGK1; cGKI; cGK 1; PRKG1B; PRKGR1B; cGKI-BETA; cGKI-alpha; PRKG1

Contact

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Product Information

Source

Rabbit

Isotype

IgG

Purification

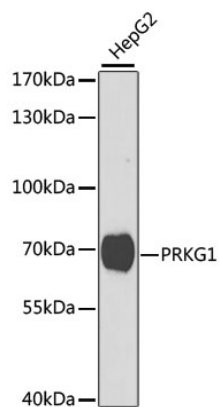
Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH 7.3.

Validation Data



Western blot analysis of extracts of HepG2 cells, using PRKG1 antibody (A2565) at 1:1000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).