

For Research Use Only

PRKG1 Polyclonal antibody

Catalog Number: 21646-1-AP

Featured Product

26 Publications



Basic Information

Catalog Number:

21646-1-AP

Size:

150ul, Concentration: 1500 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG16333

GenBank Accession Number:

BC127090

GeneID (NCBI):

5592

UNIPROT ID:

Q13976

Full Name:

protein kinase, cGMP-dependent, type I

Calculated MW:

686 aa, 78 kDa

Observed MW:

65-78 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:1000-1:3000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

Applications

Tested Applications:

WB, IHC, IP, ELISA

Cited Applications:

WB, IHC

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, bovine

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: mouse brain tissue, mouse kidney tissue, rat brain tissue, mouse lung tissue, rat lung tissue

IP: mouse brain tissue,

IHC: human heart tissue,

Background Information

PRKG1(cGMP-dependent protein kinase 1) is also named as cGK1, PRKG1B, PRKGR1A, PRKGR1B and belongs to the cGMP subfamily. It serves as an integral component of second messenger signaling in a number of biological contexts including cell differentiation, memory, and vasodilation(PMID:21893290). Its activity prevents pathological-level nitric oxide-induced apoptosis and promotes DNA synthesis/cell proliferation in vascular smooth muscle cells(PMID:20060325). PRKG1 has 2 isoforms produced by alternative splicing with the molecular weight of 76 kDa and 78 kDa. The autophosphorylation can increase the kinase activity and it can form a monomer with the molecular weight of 65 kDa that is produced by proteolytic cleavage. SDS-PAGE revealed that proteolysis generated two different monomers with molecular masses of 70 and 68 kDa of CGK1-beta(PMID:8702828).

Notable Publications

Author	Pubmed ID	Journal	Application
Liqian Chen	36099983	J Ethnopharmacol	WB
Dan Zhang	36353487	Front Pharmacol	WB
Jingsi Chen	33093639	Hypertens Res	WB,IHC

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

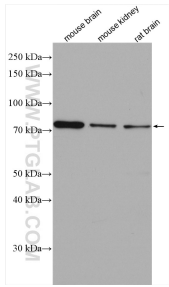
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

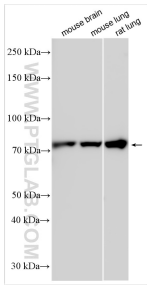
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

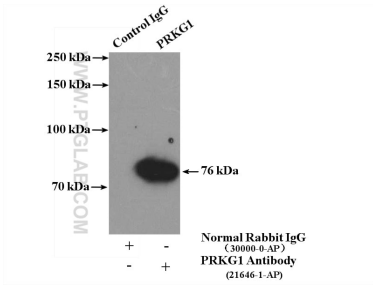
Selected Validation Data



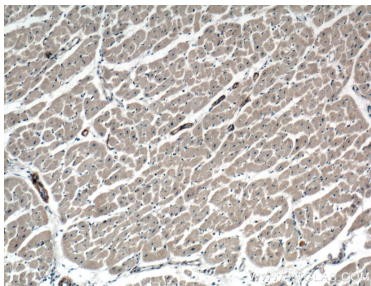
Various lysates were subjected to SDS PAGE followed by western blot with 21646-1-AP (PRKG1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



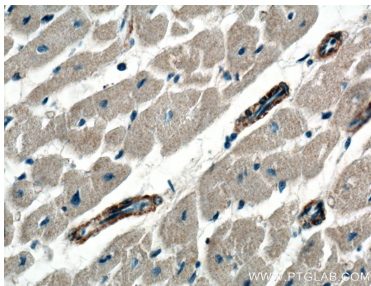
Various lysates were subjected to SDS PAGE followed by western blot with 21646-1-AP (PRKG1 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



IP result of anti-PRKG1 (IP:21646-1-AP, 4ug; Detection:21646-1-AP 1:600) with mouse brain tissue lysate 4000ug.



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 21646-1-AP (PRKG1 Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 21646-1-AP (PRKG1 Antibody) at dilution of 1:200 (under 40x lens).