

For Research Use Only

PRKG1 Polyclonal antibody

Catalog Number: 21646-1-AP

Featured Product

25 Publications



Basic Information

Catalog Number:

21646-1-AP

Size:

150ul, Concentration: 900 ug/ml by Nanodrop and 513 ug/ml by Bradford method using BSA as the standard;

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

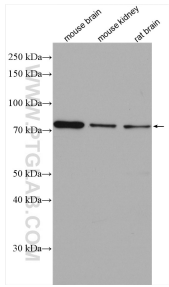
For technical support and original validation data for this product please contact:

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

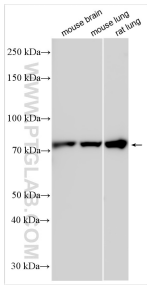
E: proteintech@ptglab.com
W: ptglab.com

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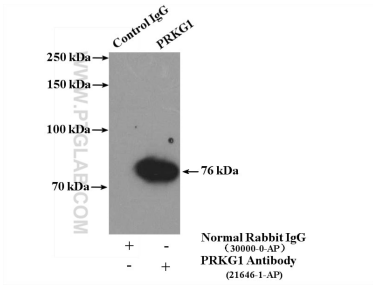
Selected Validation Data



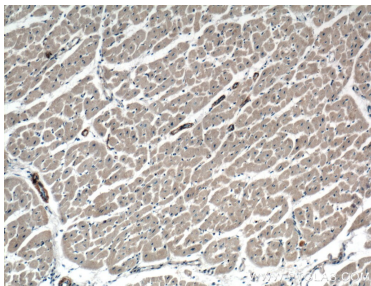
Various lysates were subjected to SDS PAGE followed by western blot with 21646-1-AP (PRKG1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



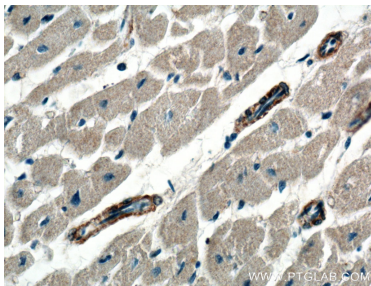
Various lysates were subjected to SDS PAGE followed by western blot with 21646-1-AP (PRKG1 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



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).