For Research Use Only

GCK Polyclonal antibody

Catalog Number:15629-1-AP Featured Product 3 Publications

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Basic Information

Catalog Number:
15629-1-AP

Size:
150ul , Concentration: 550 ug/ml by Nanodrop and 333 ug/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG7904

GenBank Accession Number:
BC001890

GeneID (NCBI):
2645

UNIPROT ID:
P35557

Full Name:
glucokinase (hexokinase 4)

Calculated MW:
52 kDa

Observed MW:
52 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:6000
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, pig

Cited Species:
mouse

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 liver tissue, rat liver tissue, pig liver tissue

IP : mouse liver tissue,

IHC : human liver cancer tissue, rat liver tissue

Background Information

Glucokinase (GCK) is a structurally and functionally unique member of hexokinase family. It is expressed only in mammalian liver and pancreatic islet beta cells. Because of its unique functional characteristics, the enzyme plays an important regulatory role in glucose metabolism.The rate of glucose metabolism in liver and pancreas is a function of the activity of the enzyme(PMID:1740341). Moreover, GCK has been found to have relationship with diabetes. Defects in GCK are the cause of maturity-onset diabetes of the young type 2 (MODY2) and familial hyperinsulinemic hypoglycemia type 3 (HHF3). It has 3 isoforms produced by alternative splicing with the same molecular mass of 52 kDa. The westernblotting results of human cells we tested are not well, therefore, we do not recommend it to customers who would like to do WB involved in human.

Notable Publications

Author	Pubmed ID	Journal	Application
Jose A Godoy-Lugo	35921918	Mol Cell Endocrinol	WB
Asami Furukawa	34382357	J Diabetes Investig	WB
Brian E Ford	39173844	Biochem Pharmacol	WB,IHC

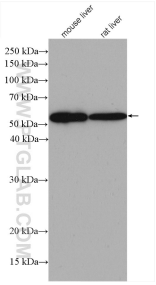
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

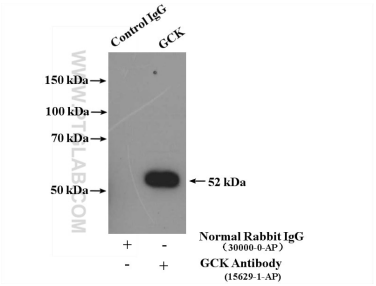
*** 20ul sizes contain 0.1% BSA

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

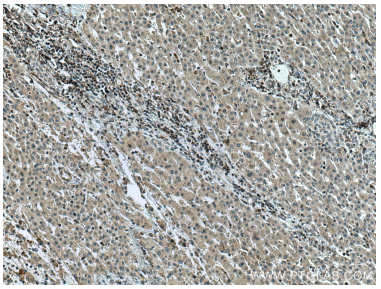
Selected Validation Data



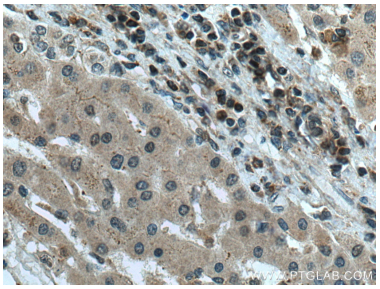
Various lysates were subjected to SDS PAGE followed by western blot with 15629-1-AP (GCK antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



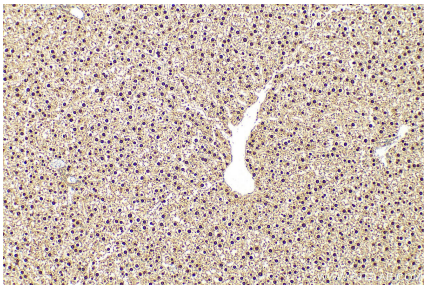
IP result of anti-GCK (IP:15629-1-AP, 4ug; Detection:15629-1-AP 1:500) with mouse liver tissue lysate 7000ug.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 15629-1-AP (GCK antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 15629-1-AP (GCK antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat liver tissue slide using 15629-1-AP (GCK antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).