For Research Use Only

PHGDH Polyclonal antibody

Catalog Number:14719-1-AP Featured Product 46 Publications

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Basic Information

Catalog Number:
14719-1-AP

Size:
150ul , Concentration: 350 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG6445

GenBank Accession Number:
BC000303

GeneID (NCBI):
26227

Full Name:
phosphoglycerate dehydrogenase

Calculated MW:
57 kDa

Observed MW:
57 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 1:500-1:2000
IF 1:50-1:500

Applications

Tested Applications:
IF, IHC, IP, WB, ELISA

Cited Applications:
CoIP, IF, IHC, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, 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 : HEK-293T cells, mouse brain tissue, rat brain tissue, HeLa cells, HepG2 cells, MCF-7 cells, MDA-MB-453s cells

IP : HeLa cells,

IHC : human lymphoma tissue, human breast hyperplasia tissue, mouse brain tissue

IF : HeLa cells,

Background Information

PHGDH(D-3-phosphoglycerate dehydrogenase) is also named as 3-PGDH, PGDH3 and belongs to the D-isomer specific 2-hydroxyacid dehydrogenase family. It catalyzes the transition of 3-phosphoglycerate into 3-phosphohydroxypyruvate, which is the first and rate-limiting step in the phosphorylated pathway of serine biosynthesis, using NAD+/NADH as a cofactor. 3-PGDH deficiency is a rare recessive inborn error in the biosynthesis of the amino acid L-serine characterized clinically by congenital microcephaly, psychomotor retardation, and intractable seizures(PMID:19235232).

Notable Publications

Author	Pubmed ID	Journal	Application
Shengya Tian	31562192	Life Sci Alliance	WB
Ji Wang	34544857	Proc Natl Acad Sci U S A	WB
R L Yang	32940141	J Dent Res	WB,IF

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
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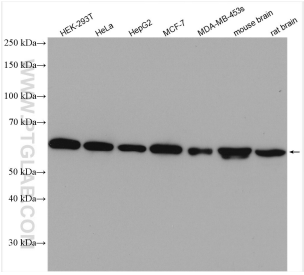
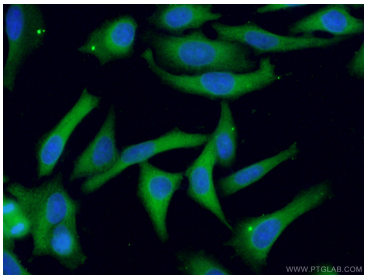
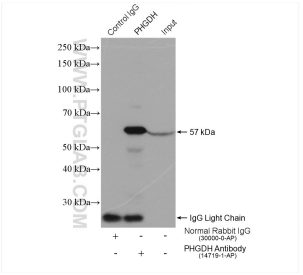
Selected Validation Data



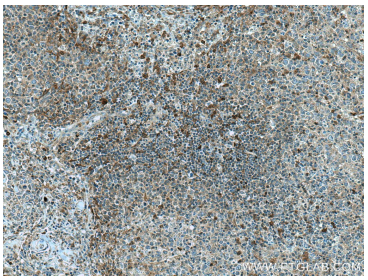
Various lysates were subjected to SDS PAGE followed by western blot with 14719-1-AP (PHGDH antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



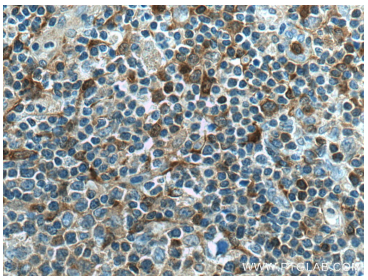
Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using 14719-1-AP (PHGDH antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-PHGDH(IP:14719-1-AP, 4ug; Detection:14719-1-AP 1:10000) with HeLa cells lysate 1880 ug.



Immunohistochemical analysis of paraffin-embedded human lymphoma tissue slide using 14719-1-AP (PHGDH antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human lymphoma tissue slide using 14719-1-AP (PHGDH antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).