

For Research Use Only

GAPDH Polyclonal antibody

Catalog Number: 10494-1-AP

7951 Publications



Basic Information

Catalog Number:

10494-1-AP

Concentration:

600 ug/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0766

GenBank Accession Number:

BC004109

GeneID (NCBI):

2597

UNIPROT ID:

P04406

Full Name:

glyceraldehyde-3-phosphate dehydrogenase

Calculated MW:

36 kDa

Observed MW:

36 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:5000-1:40000

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

IHC: 1:200-1:800

IF/ICC: 1:500-1:2000

FC (Intra): 0.50 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP, ChIP, RIP, ELISA

Species Specificity:

human, mouse, rat

Cited Species:

human, rat, chicken, goat, yeast, leech, treeshrew, cavia porcellus (domestic guinea pig), arabidopsis, zebra finches

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: human placenta tissue, HepG2 cells, HEK-293 cells, HeLa cells, Raji cells, K-562 cells, mouse heart tissue, PC-13 cells, arabidopsis whole plant tissue, corn whole plant tissue, mouse brain tissue, mouse skin tissue, Jurkat cells, NIH/3T3 cells, C6 cells, rat brain tissue, RAW 264.7 cells

IP: A549 cells,

IHC: human breast cancer tissue, human lung cancer tissue

IF/ICC: HeLa cells, HepG2 cells

FC (Intra): HEK-293 cells,

Background Information

Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) catalyzes the phosphorylation of glyceraldehyde-3-phosphate during glycolysis. GAPDH participates in nuclear events including transcription, binding RNA, RNA transportation, DNA replication, DNA repair and apoptosis. Being stably and constitutively expressed at high levels in most tissues and cells, GAPDH is considered a housekeeping protein. It is widely used as a control for RT-PCR and also loading control in electrophoresis and Western blotting. GAPDH is normally expressed in cellular cytoplasm or membrane, but can occasionally translocate to the nucleus after the addition of post-translational modifications such as S-nitrosylation. This antibody is raised against full length GAPDH of human origin. It can recognize the 36 kDa GAPDH protein in most cells/tissues. In addition, a band below 36 kDa can always be detected as the isoform or spliced product of GAPDH (PMID: 23885286, 23877755, 19368702). Please note that some physiological factors, such as hypoxia and diabetes, increase GAPDH expression in certain cell types.

Notable Publications

Author	Pubmed ID	Journal	Application
Xin Xu	36178722	Environ Toxicol	WB
Hejie Wang	36178582	In Vitro Cell Dev Biol Anim	WB
Xin Wen	36249018	Front Oncol	WB

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

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

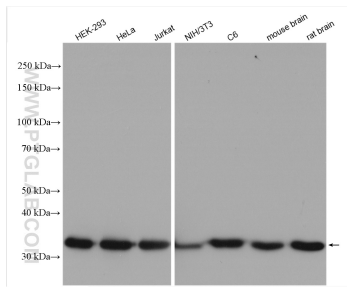
T: 4006900926

E: Proteintech-CN@ptglab.com

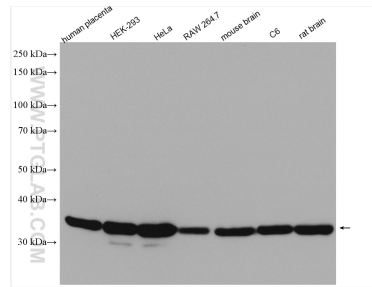
W: ptgcn.com

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

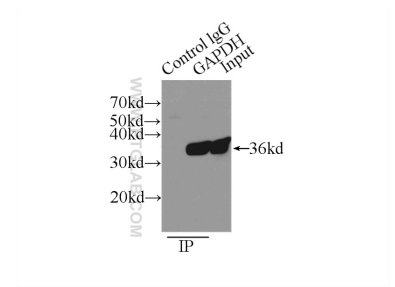
Selected Validation Data



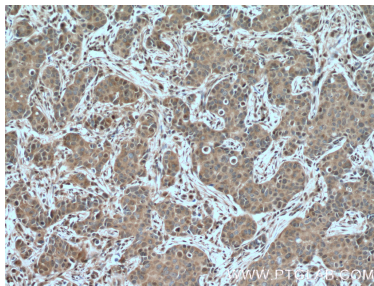
Various lysates were subjected to SDS PAGE followed by western blot with 10494-1-AP (GAPDH antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



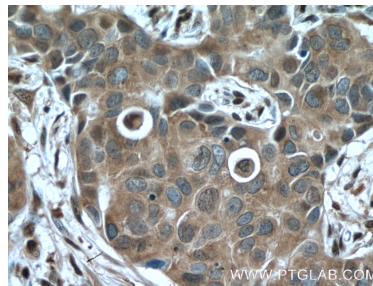
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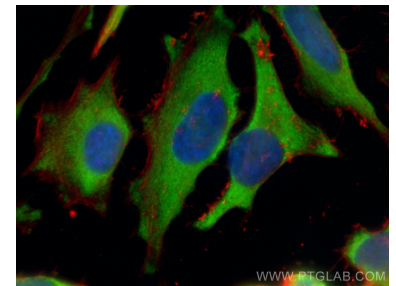
IP result of anti-GAPDH (IP:10494-1-AP, 3ug; Detection:10494-1-AP 1:3000) with A549 cells lysate 3500ug.



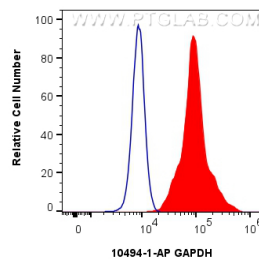
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 10494-1-AP (GAPDH antibody) at dilution of 1:400 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 10494-1-AP (GAPDH antibody) at dilution of 1:400 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed HeLa cells using GAPDH antibody (10494-1-AP) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CoraLite®594 Beta Actin antibody (CL594-66009, Clone: 2D4H5, red).



1x10⁶ HEK-293 cells were intracellularly stained with 0.5 ug GAPDH Polyclonal antibody (10494-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.5 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).