

For Research Use Only

# GAPDH Monoclonal antibody

Catalog Number: 60004-1-Ig

Featured Product

13668 Publications



## Basic Information

### Catalog Number:

60004-1-Ig

### Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

### Source:

Mouse

### Isotype:

IgG2b

### 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:

Protein A purification

### CloneNo.:

1E6D9

### Recommended Dilutions:

WB: 1:50000-1:500000

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

IHC: 1:3000-1:16000

IF/ICC: 1:400-1:1600

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

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

### Cited Applications:

WB, IHC, IF, IP, CoIP, ELISA

### Species Specificity:

human, mouse, rat, pig, zebrafish, yeast, plant

### Cited Species:

human, rat, chicken, goat, yeast, deer, whiteflies, tick, treeshrew, cynomorium songaricum

**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**: HeLa cells, HepG2 cells, ROS1728 cells, pig brain tissue, zebrafish tissue, whole yeast, whole Nematode tissue, soybean whole plant tissue, arabidopsis whole plant tissue, HEK-293 cells, Jurkat cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells, 4T1 cells, C6 cells, PC-12 cells, C2C12 cells, SP2/O cells, rat brain tissue, mouse brain tissue

**IP**: HeLa Cells,

**IHC**: human liver cancer tissue,

**IF/ICC**: HeLa cells,

**FC (Intra)**: HeLa 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. For murine tissue samples, conjugated mouse antibody HRP-60004 and rabbit antibody 10494-1-AP are preferable.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yuying Wang	36183783	Chem Biol Interact	WB
Xin Shen	36184549	Int Heart J	WB
Yueke Lin	36178239	EMBO Rep	WB,IP

## 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

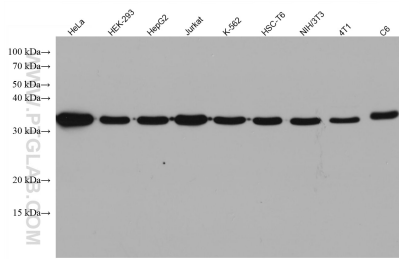
For technical support and original validation data for this product please contact:

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

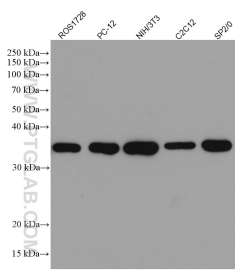
E: proteintech@ptglab.com  
W: ptglab.com

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

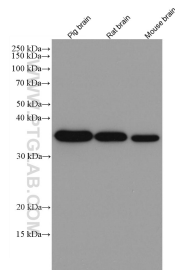
Selected Validation Data



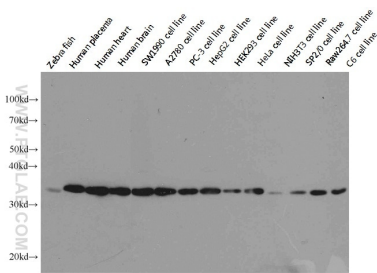
Various lysates were subjected to SDS PAGE followed by western blot with 60004-1-Ig (GAPDH antibody) at dilution of 1:200000 incubated at room temperature for 1.5 hours.



Various lysates were subjected to SDS PAGE followed by western blot with 60004-1-Ig (GAPDH antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.

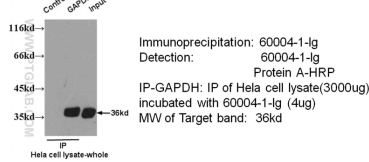


Various lysates were subjected to SDS PAGE followed by western blot with 60004-1-Ig (GAPDH antibody) at dilution of 1:50000 incubated at room temperature for 1.5 hours.

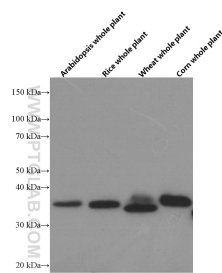


Western blot analysis of GAPDH in various tissues and cell lines using Proteintech antibody 60004-1-Ig at a dilution of 1:10000.

IP & WB of 60004-1-Ig with HeLa Cell



IP result of anti-GAPDH (60004-1-Ig for IP and Detection) with HeLa cell lysate.



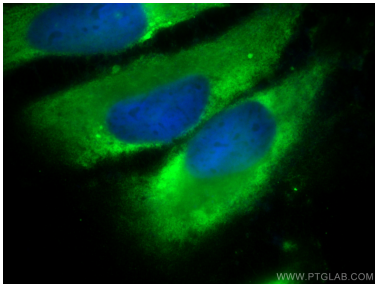
arabidopsis, rice, wheat, corn whole plant tissue were subjected to SDS PAGE followed by western blot with 60004-1-Ig (GAPDH Antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



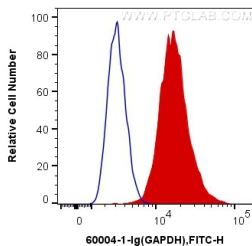
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 60004-1-Ig (GAPDH antibody) at dilution of 1:16000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 60004-1-Ig (GAPDH antibody) at dilution of 1:16000 (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 (60004-1-Ig, Clone: 1E6D9) at dilution of 1:800 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002).



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human GAPDH (60004-1-Ig, Clone:1E6D9) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Mouse IgG2b Isotype Control (66360-3-Ig, Clone: K11B8C4B5) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).