For Research Use Only

GAPDH Monoclonal antibody

Catalog Number:60004-1-Ig Featured Product 9716 Publications

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
60004-1-Ig

Size:
1000 μg/ml

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
IF 1:200-1:2000
FC 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

Tested Applications:
FC, IF/ICC, IP, WB, ELISA

Cited Applications:
WB, IP, IF, FC, IHC, CoIP, Cell treatment

Species Specificity:
human, mouse, rat, yeast, plant, zebrafish, pig

Cited Species:
Deer, human, Goat, tick, treeshrew, Cynomorium songaricum, chicken, whiteflies, Yeast, rat

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, SP2/0 cells, rat brain tissue, mouse brain tissue

IP : HeLa Cells,

IF : Ethacrynic acid treated HeLa cells,

FC : 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

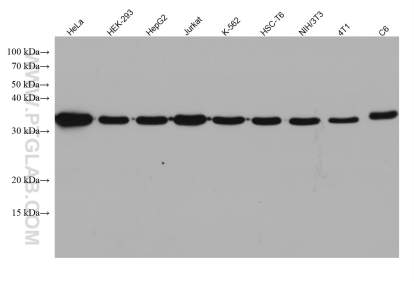
Author	Pubmed ID	Journal	Application
Yuying Wang	36183783	Chem Biol Interact	WB
Xin Shen	36184549	Int Heart J	WB
Yueke Lin	36178239	EMBO Rep	WB,IP

Storage

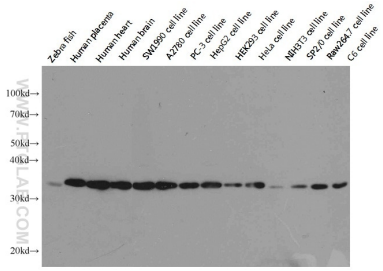
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

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

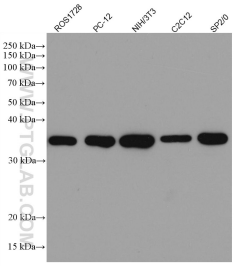
Selected Validation Data



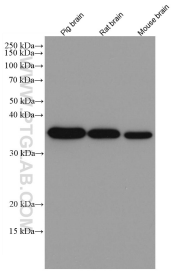
Various lysates were subjected to SDS PAGE followed by western blot with 60004-1-Ig (GAPDH antibody) at dilution of 1:200000 incubated at room temperature for 1.5 hours.



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



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.



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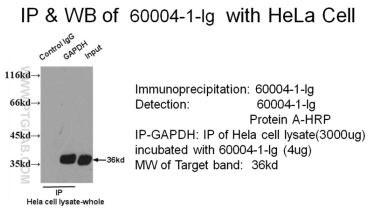
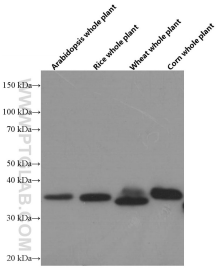
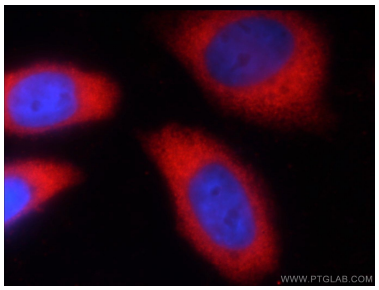


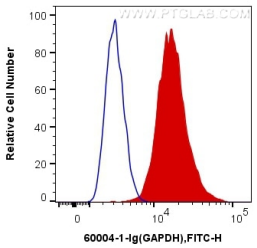
IP result of anti-GAPDH (60004-1-Ig for IP and Detection) with HeLa cell lysate.



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.



Immunofluorescent analysis of EA treated HeLa cells using 60004-1-Ig(GAPDH antibody) at dilution of 1:50 and Rhodamine-labeled goat anti-mouse IgG (red).



1X10^6 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).