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GAPDH Mouse mAb

Catalog No.: AC002 **935 Publications**

Basic Information

Observed MW
36 kDa

Calculated MW
36 kDa

Category
Loading control antibody

Applications
WB,Auto WB,IF/ICC,IHC-P,ELISA

Cross-Reactivity
Human, Mouse, Rat

CloneNo number
AMC0062R

Background

This gene encodes a member of the glyceraldehyde-3-phosphate dehydrogenase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. The product of this gene catalyzes an important energy-yielding step in carbohydrate metabolism, the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD). The encoded protein has additionally been identified to have uracil DNA glycosylase activity in the nucleus. Also, this protein contains a peptide that has antimicrobial activity against E. coli, P. aeruginosa, and C. albicans. Studies of a similar protein in mouse have assigned a variety of additional functions including nitrosylation of nuclear proteins, the regulation of mRNA stability, and acting as a transferrin receptor on the cell surface of macrophage. Many pseudogenes similar to this locus are present in the human genome. Alternative splicing results in multiple transcript variants.

Recommended Dilutions

WB	1:50000 - 1:200000
Auto WB	1:100 - 1:500
IF/ICC	1:50 - 1:200
IHC-P	1:50 - 1:200
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
2597

Swiss Prot
P04406

Immunogen
Recombinant protein (or fragment).This information is considered to be commercially sensitive.

Synonyms
G3PD; GAPD; HEL-S-162eP; GAPDH

Contact

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Product Information

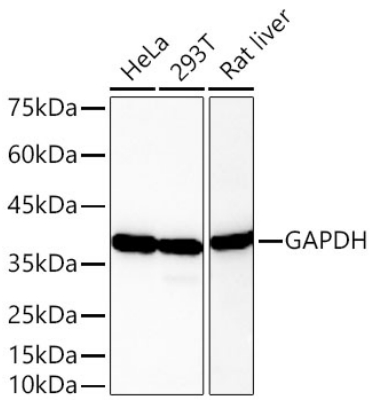
Source
Mouse

Isotype
IgG2b,Kappa

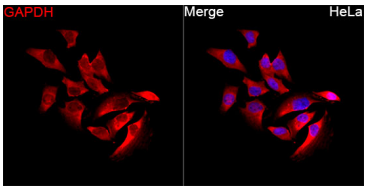
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS containing 50% glycerol, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

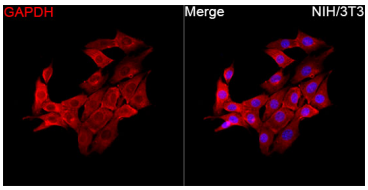
Validation Data



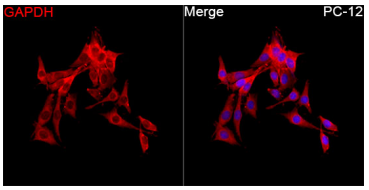
Western blot analysis of various lysates using GAPDH Mouse mAb (AC002) at 1:80000 dilution incubated overnight at 4℃.
Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 20 s.



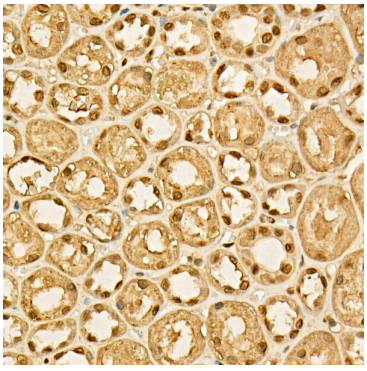
Immunofluorescence analysis of HeLa cells using GAPDH Mouse mAb (AC002) at a dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Mouse IgG (H+L) (AS008) at 1:500 dilution. Blue: DAPI for nuclear staining.



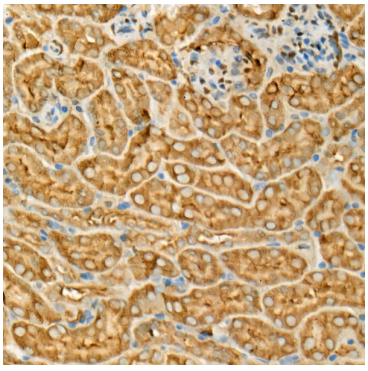
Immunofluorescence analysis of NIH/3T3 cells using GAPDH Mouse mAb (AC002) at a dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Mouse IgG (H+L) (AS008) at 1:500 dilution. Blue: DAPI for nuclear staining.



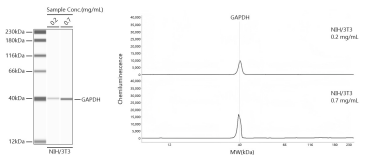
Immunofluorescence analysis of PC-12 cells using GAPDH Mouse mAb (AC002) at a dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Mouse IgG (H+L) (AS008) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunohistochemistry analysis of paraffin-embedded Human kidney using GAPDH Mouse mAb (AC002) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.

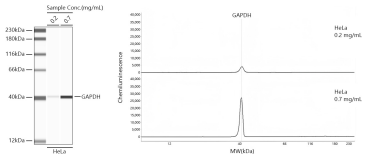


Immunohistochemistry analysis of paraffin-embedded Mouse kidney using GAPDH Mouse mAb (AC002) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



Simple Western™ analysis of lysates from NIH/3T3 cells using GAPDH Mouse mAb (AC002) at 1:200 dilution. The virtual lane view (left) shows the target band (as indicated) with samples in concentrations of 0.2 mg/mL and 0.7 mg/mL. The corresponding electropherogram view (right) plots chemiluminescence intensity against molecular weight along the capillary for sample concentrations of 0.2 mg/mL and 0.7 mg/mL. This experiment was performed under reducing conditions on the Jess™ Simple Western instrument from ProteinSimple, a BioTechne brand, using the

Validation Data



Simple Western™ analysis of lysates from HeLa cells using GAPDH Mouse mAb (AC002) at 1:200 dilution. The virtual lane view (left) shows the target band (as indicated) with samples in concentrations of 0.2 mg/mL and 0.7 mg/mL. The corresponding electropherogram view (right) plots chemiluminescence intensity against molecular weight along the capillary for sample concentrations of 0.2 mg/mL and 0.7 mg/mL. This experiment was performed under reducing conditions on the Jess™ Simple Western instrument from ProteinSimple, a BioTechne brand, using the 12-230 kDa separation module.

12-230 kDa separation module.