

# GAPDH Mouse mAb (High Dilution)

Catalog No.: AC033

336 Publications

## Basic Information

### Observed MW

36kDa

### Calculated MW

36kDa

### Category

Loading control antibody

### Applications

WB, IHC-P, IF/ICC, ELISA

### Cross-Reactivity

Human, Mouse, Rat

### CloneNo number

AMC0062

## 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.

**Note** Due to the high antibody titer, it is advisable to be diluted before use. Please dilute 5µL of the antibody solution with 45µL of PBS solution, containing 50% glycerol. The diluted antibody can be stored at -20°C.

## Recommended Dilutions

**WB** 1:100000 - 1:660000

**IHC-P** 1:100 - 1:500

**IF/ICC** 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

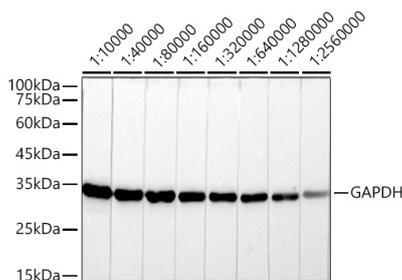
Affinity purification

### Storage

Store at -20°C. 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 lysates from HeLa cells using GAPDH Mouse mAb (High Dilution) (AC033) at 1:10000-1:2560000 dilution incubated overnight at 4°C.

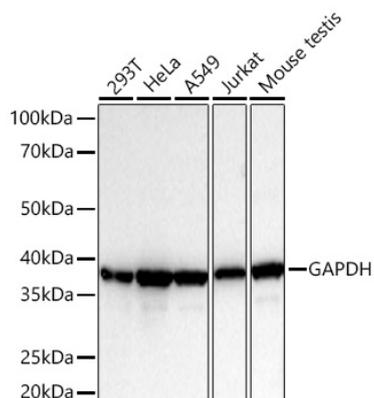
Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution.

Lysates/proteins: 25 µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 20 s.



Western blot analysis of various lysates using GAPDH Mouse mAb (High Dilution) (AC033) at 1:220000 dilution incubated overnight at 4°C.

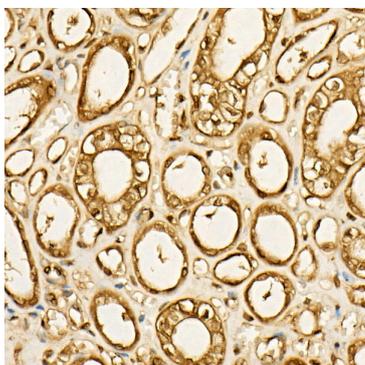
Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution.

Lysates/proteins: 25 µg per lane.

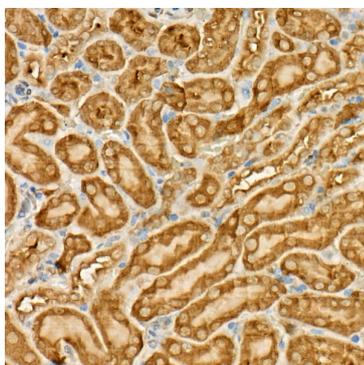
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

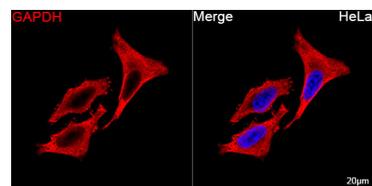
Exposure time: 10s.



Immunohistochemistry analysis of paraffin-embedded Human kidney using GAPDH Mouse mAb (High Dilution) (AC033) at dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



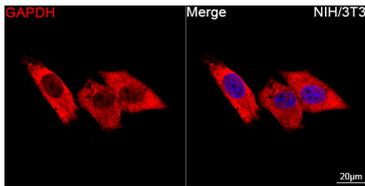
Immunohistochemistry analysis of paraffin-embedded Mouse kidney using GAPDH Mouse mAb (High Dilution) (AC033) at dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



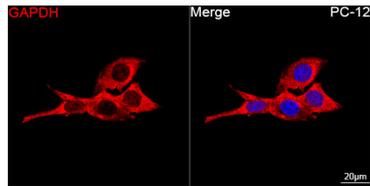
Confocal imaging of HeLa cells using GAPDH Mouse mAb (High Dilution) (AC033, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Mouse IgG (H+L) (AS008, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.

## Validation Data

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Confocal imaging of NIH/3T3 cells using GAPDH Mouse mAb (High Dilution) (AC033, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Mouse IgG (H+L) (AS008, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.



Confocal imaging of PC-12 cells using GAPDH Mouse mAb (High Dilution) (AC033, dilution 1:200) followed by a further incubation with Cy3-conjugated Goat anti-Mouse IgG (H+L) (AS008, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.