

## GAPDH (PTR2304) Mouse mAb

Catalog No: YM3029

**Reactivity:** Human; Mouse; Rat; Rabbit

**Applications:** WB

Target: GAPDH

**Fields:** >>Glycolysis / Gluconeogenesis;>>Metabolic pathways;>>Carbon

metabolism;>>Biosynthesis of amino acids;>>HIF-1 signaling pathway;>>Alzheimer disease;>>Pathogenic Escherichia coli infection;>>Salmonella infection;>>Diabetic cardiomyopathy

Gene Name: GAPDH

**Protein Name:** Glyceraldehyde-3-phosphate dehydrogenase

P04406

P16858

**Human Gene Id:** 2597

**Human Swiss Prot** 

No:

Mouse Gene ld: 100042025

**Mouse Swiss Prot** 

No:

Rat Gene ld: 24383

Rat Swiss Prot No: P04797

Immunogen: Synthetic Peptide of human GAPDH AA range: 200-300

**Specificity:** The antibody detects endogenous GAPDH protein.

**Formulation :** PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and

50% Glycerol.

**Source:** Mouse, Monoclonal/IgG1, Kappa

1/8



**Dilution:** WB 1:2000-10000

**Purification:** The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 38kD

Observed Band: 38kD

**Cell Pathway:** Glycolysis / Gluconeogenesis; Alzheimer's disease;

**Background:** glyceraldehyde-3-phosphate dehydrogenase(GAPDH) Homo sapiens This gene

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).

encodes a member of the glyceraldehyde-3-phosphate dehydrogenase protein

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 transferri

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**Function :** catalytic activity:D-glyceraldehyde 3-phosphate + phosphate + NAD(+) =

3-phospho-D-glyceroyl phosphate + NADH.,function:Independent of its glycolytic activity it is also involved in membrane trafficking in the early secretory

pathway.,online information:Glyceraldehyde 3-phosphate dehydrogenase entry,pathway:Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 1.,pathway:Carbohydrate degradation;

glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step

1/5.,PTM:Reversible S-nitrosylation of Cys-152 inhibits enzymatic activity and increases endogenous ADP-ribosylation, which inhibits the enzyme in a non-reversible manner. The latter modification is more likely to be a pathophysiological event associated with inhibition of gluconeogenesis.,sequence caution:Differs

quite extensively., similarity: Belongs to the glyceraldehyde-3-phosphate

similarity). Postnuclear and Perinuclear regions (PubMed:12829261). .

dehydrogenase fami

Subcellular Location:

Cytoplasm, cytosol . Nucleus . Cytoplasm, perinuclear region . Membrane . Cytoplasm, cytoskeleton . Translocates to the nucleus following S-nitrosylation and interaction with SIAH1, which contains a nuclear localization signal (By

**Expression:** Astrocytoma, Brain, Cajal-Retzius cell, Colon adenocarcinoma, Epitheliu

Tag: orthogonal,hot

Sort: 1

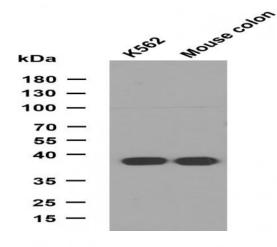
No1: Sc-47724

**No3:** ab8245

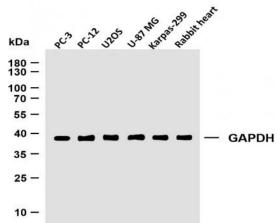
Host: Mouse

Modifications: Unmodified

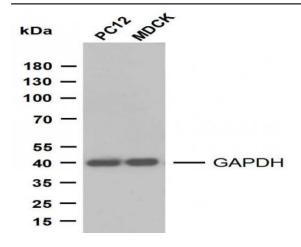
## **Products Images**



Various whole cell lysates of K562,Mouse colon(10ug) were separated by 10% SDS-PAGE, and the membrane was blotted with GAPDH antibody. The HRP-conjugated anti-Mouse IgG antibody was used to detect the antibody. Lane 1: K562 Lane 2: Mouse colon Predicted band size: 38kDa Observed band size: 38kDa

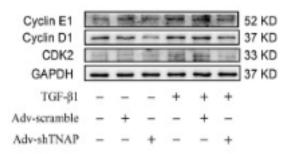


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-GAPDH (PTR2304) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1:PC-3 Lane 2: PC-12 Lane 3: U2OS Lane 4: U-87 MG Lane 5:Karpas-299 Lane 6: Rabbit heart Predicted band size: 37kDa Observed band size: 37kDa

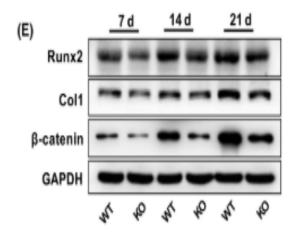


Various whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with GAPDH(PTR2304) antibody. The HRP-conjugated anti-Mouse IgG antibody was used to detect the antibody. Lane 1: PC-12 Lane 2: MDCK Predicted band size: 38kDa Observed band size: 38kDa

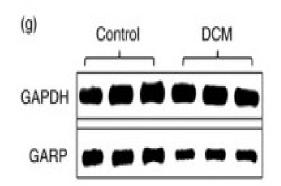




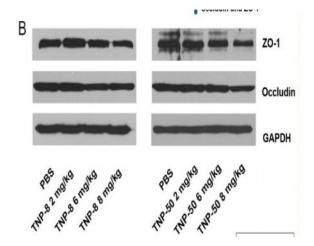
Cheng, Xiaocheng, et al. "TNAP is a novel regulator of cardiac fibrosis after myocardial infarction by mediating TGF- $\beta$ /Smads and ERK1/2 signaling pathways." EBioMedicine 67 (2021): 103370.



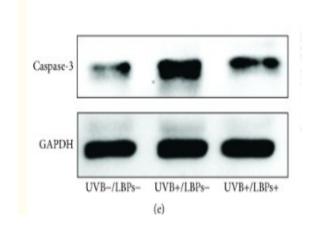
Wang, Yingying, et al. "p75NTR-/- mice exhibit an alveolar bone loss phenotype and inhibited PI3K/Akt/ $\beta$ -catenin pathway." Cell proliferation 53.4 (2020): e12800.



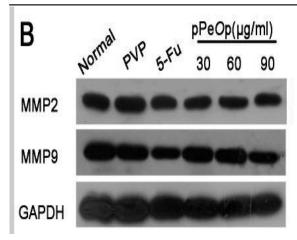
Wei, Yuzhen, et al. "CD4+ CD25+ GARP+ regulatory T cells display a compromised suppressive function in patients with dilated cardiomyopathy." Immunology 151.3 (2017): 291-303.



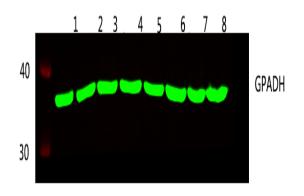
Zhang, Chengke, et al. "Induction of size-dependent breakdown of blood-milk barrier in lactating mice by TiO2 nanoparticles." PloS one 10.4 (2015): e0122591.



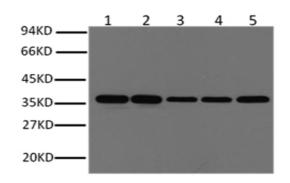
Du, Shaobo, et al. "Lycium barbarum Polysaccharides Protect Rat Corneal Epithelial Cells against Ultraviolet B-Induced Apoptosis by Attenuating the Mitochondrial Pathway and Inhibiting JNK Phosphorylation." BioMed research international 2017 (2017).



Chen, Luchao, et al. "Effects of purified Omphalia lapidescens protein on metastasis, cell cycle, apoptosis and the JAK-STAT signaling pathway in SGC-7901 human gastric cells." Oncology letters 15.4 (2018): 4161-4170.



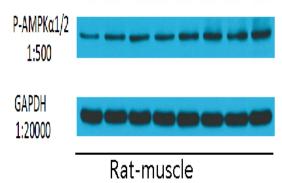
Western blot analysis of 1 HEK293 2 SW480 3 HEPG2 4 MCF-7 5 mouse brain 6 Rat brain 7 Hela 8 A549 lysates, primary antibody was diluted at 1:5000, 4° over night, secondary antibody(cat: RS23910 was diluted at 1:10000, 37° 1hour.



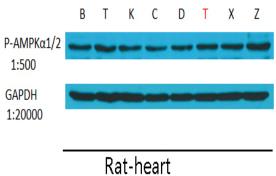
Western blot analysis of Hela (1), Rat brain (2), Rabbit Muscle (3), Sheep Muscle (4), and Mouse brain (5), diluted at 1:10000.

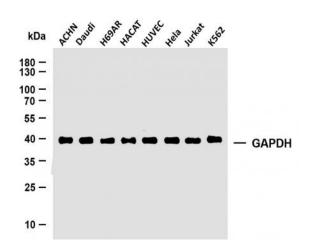


The picture was kindly provided by our customer

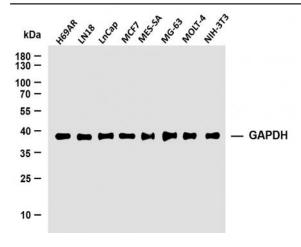


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Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-GAPDH (PTR2304) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1:ACHN Lane 2: Daudi Lane 3: H69AR Lane 4: HACAT Lane 5:HUVEC Lane 6: Hela Lane 7: Jurkat Lane 8: K562 Predicted band size: 37kDa Observed band size: 37kDa



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-GAPDH (PTR2304) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1:H69AR Lane 2: LN18 Lane 3: LnCap Lane 4: MCF7 Lane 5:MES-SA Lane 6: MG-63 Lane 7: MOLT-4 Lane 8: NIH-3T3 Predicted band size: 37kDa Observed band size: 37kDa