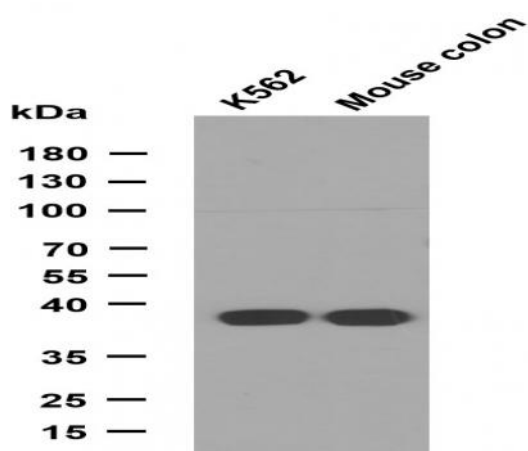


GAPDH (PTR2304) Mouse mAb

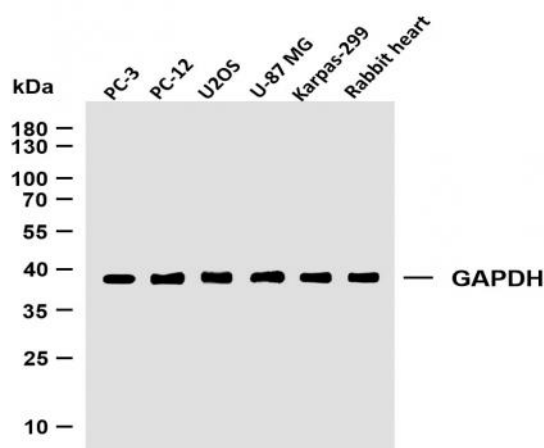
| | |
|------------------------------|--|
| Catalog No : | YM3029 |
| Reactivity : | Human; Mouse; Rat;Rabbit |
| Applications : | WB |
| Target : | GAPDH |
| Fields : | >>Glycolysis / Gluconeogenesis;>>Metabolic pathways;>>Carbon metabolism;>>Biosynthesis of amino acids;>>HIF-1 signaling pathway;>>Alzheimer disease;>>Pathogenic Escherichia coli infection;>>Salmonella infection;>>Diabetic cardiomyopathy |
| Gene Name : | GAPDH |
| Protein Name : | Glyceraldehyde-3-phosphate dehydrogenase |
| Human Gene Id : | 2597 |
| Human Swiss Prot No : | P04406 |
| Mouse Gene Id : | 100042025 |
| Mouse Swiss Prot No : | P16858 |
| Rat Gene Id : | 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 |

| | |
|-------------------------------|--|
| 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 : | <p>glyceraldehyde-3-phosphate dehydrogenase(GAPDH) Homo sapiens 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 transferri</p> |
| Function : | <p>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 dehydrogenase fami</p> |
| Subcellular Location : | <p>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 similarity). Postnuclear and Perinuclear regions (PubMed:12829261). .</p> |
| Expression : | Astrocytoma,Brain,Cajal-Retzius cell,Colon adenocarcinoma,Epitheliu |

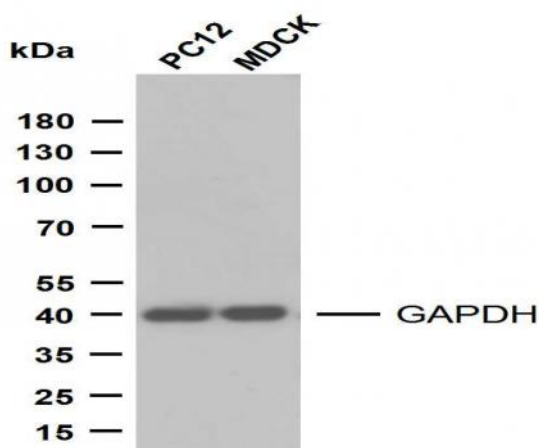
Products Images



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

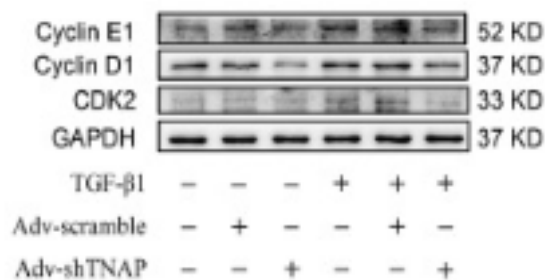


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-GAPDH (PTR2304) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: PC-3 Lane 2: PC-12 Lane 3: U2OS Lane 4: U-87 MG Lane 5: Karpas-299 Lane 6: Rabbit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



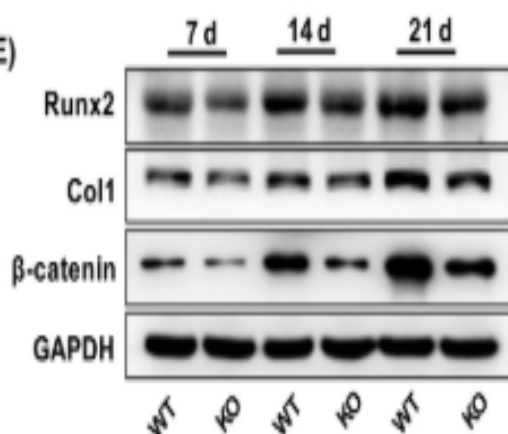
Various whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with GAPDH (PTR2304) antibody. The HRP-conjugated anti-Mouse IgG antibody was used to detect the antibody. Lane 1: PC-12 Lane 2: MDCK Predicted band size: 38kDa Observed band size: 38kDa

b



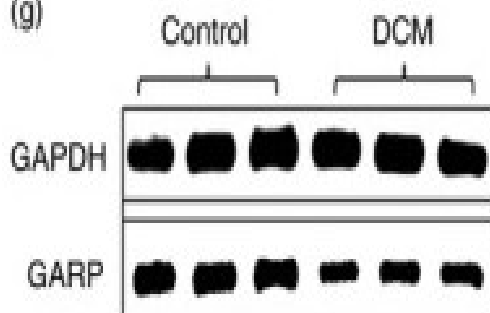
Cheng, Xiaocheng, et al. "TNAP is a novel regulator of cardiac fibrosis after myocardial infarction by mediating TGF-β/Smads and ERK1/2 signaling pathways." *EBioMedicine* 67 (2021): 103370.

(E)

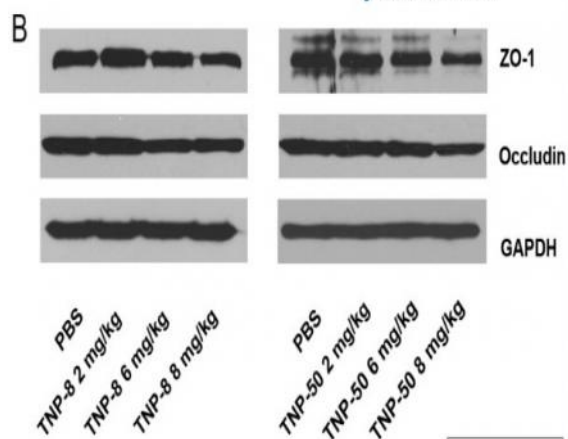


Wang, Yingying, et al. "p75NTR^{-/-} mice exhibit an alveolar bone loss phenotype and inhibited PI3K/Akt/β-catenin pathway." *Cell proliferation* 53.4 (2020): e12800.

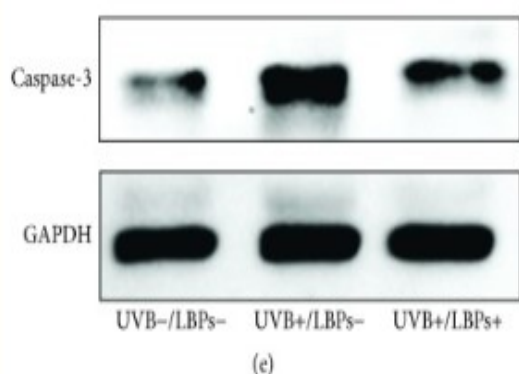
(g)



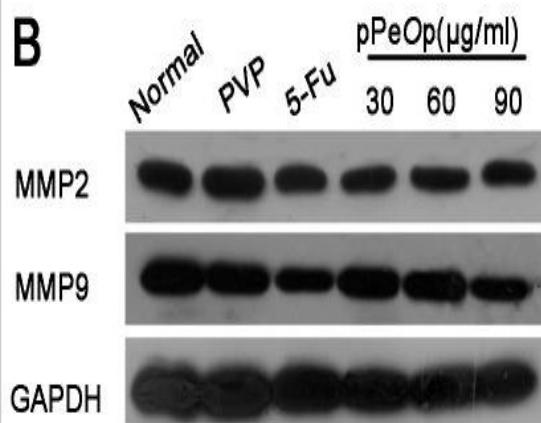
Wei, Yuzhen, et al. "CD4⁺ CD25⁺ GARP⁺ regulatory T cells display a compromised suppressive function in patients with dilated cardiomyopathy." *Immunology* 151.3 (2017): 291-303.



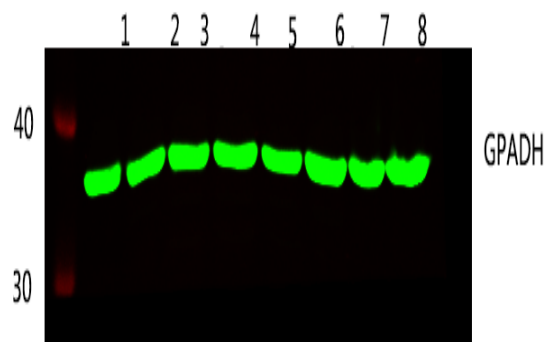
Zhang, Chengke, et al. "Induction of size-dependent breakdown of blood-milk barrier in lactating mice by TiO₂ nanoparticles." *PloS one* 10.4 (2015): e0122591.



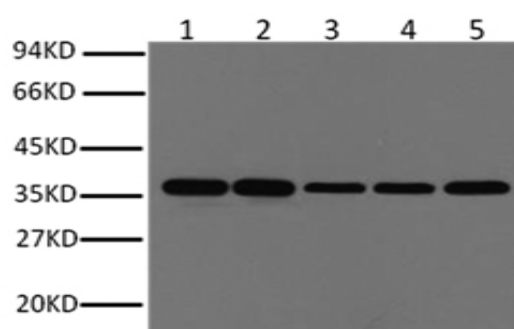
Du, Shaobo, et al. "Lycium barbarum Polysaccharides Protect Rat Corneal Epithelial Cells against Ultraviolet B-Induced Apoptosis by Attenuating the Mitochondrial Pathway and Inhibiting JNK Phosphorylation." *BioMed research international* 2017 (2017).



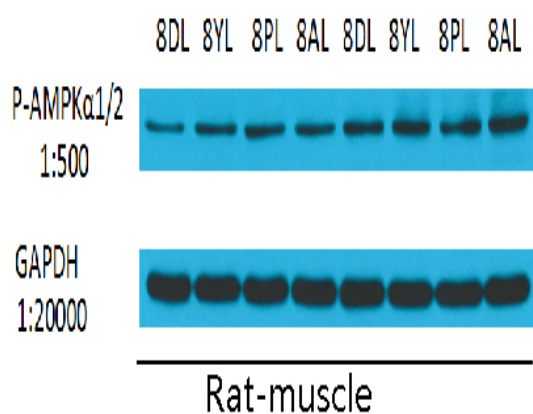
Chen, Luchao, et al. "Effects of purified *Omphalia lapidescens* protein on metastasis, cell cycle, apoptosis and the JAK-STAT signaling pathway in SGC-7901 human gastric cells." *Oncology letters* 15.4 (2018): 4161-4170.



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° 1 hour.

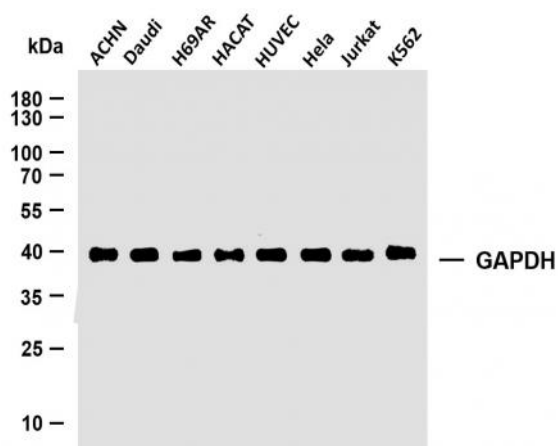
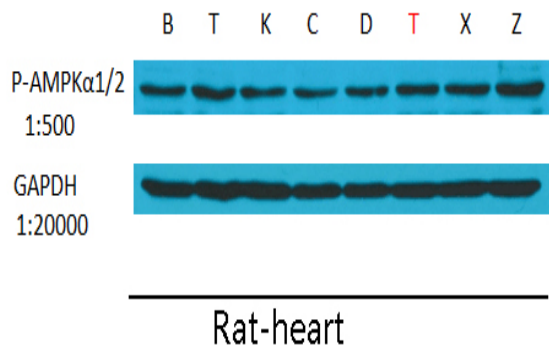


Western blot analysis of Hela (1), Rat brain (2), Rabbit Muscle (3), Sheep Muscle (4), and Mouse brain (5), diluted at 1:10000.

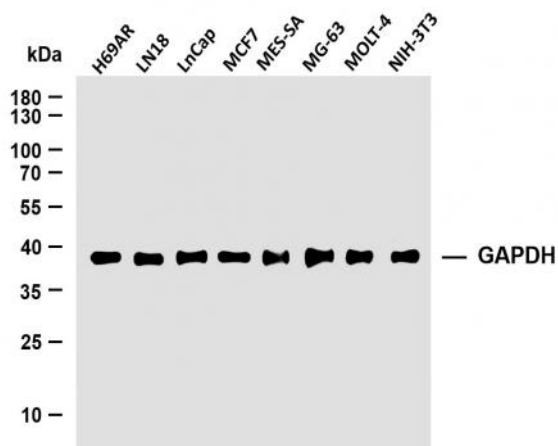


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Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-GAPDH (PTR2304) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1:ACHN Lane 2: Daudi Lane 3: 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