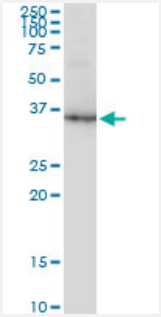
# GAPDH monoclonal antibody (M01), clone 3C2

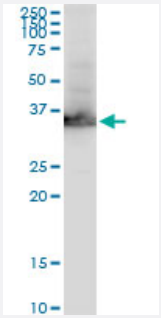
Catalog # H00002597-M01 Size 100 ug

## Applications



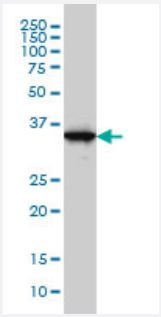

### Western Blot (Cell lysate)

GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in NIH/3T3(Cat # L018V1 ).



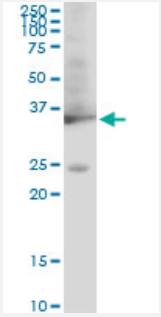

### Western Blot (Cell lysate)

GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in Raw 264.7(Cat # L024V1 ).



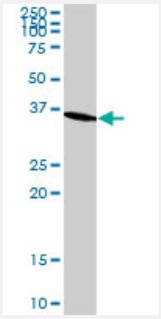

### Western Blot (Cell lysate)

GAPDH monoclonal antibody (M01), clone 3C2 Western Blot analysis of GAPDH expression in A-431 ( Cat # L015V1 ).



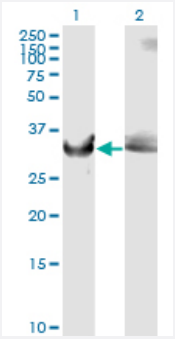

### Western Blot (Cell lysate)

GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in PC-12(Cat # L012V1 ).




## Western Blot (Cell lysate)

GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in HeLa ( Cat # L013V1 ).

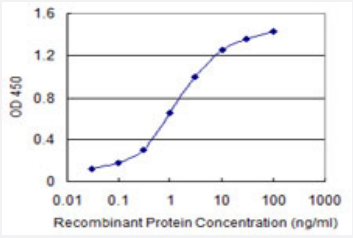



## Western Blot (Transfected lysate)

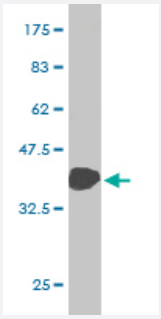
Western Blot analysis of GAPDH expression in transfected 293T cell line by GAPDH monoclonal antibody (M01), clone 3C2.

Lane 1: GAPDH transfected lysate(36.1 KDa).
Lane 2: Non-transfected lysate.

## Sandwich ELISA (Recombinant protein)




Detection limit for recombinant GST tagged GAPDH is 0.03 ng/ml as a capture antibody.




Western Blot detection against Immunogen (37.84 KDa) .

## Specification

| | |
|---|---|
| **Product Description** | Mouse monoclonal antibody raised against a partial recombinant GAPDH. |
| **Immunogen** | GAPDH (NP_002037, 226 a.a. ~ 335 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. |

| | |
|---|---|
| **Sequence** | GKLTGMAFRVPTANVSVVDLTCRLEKPAKYDDIKKVVKQASEGPLKGILGYTEHQVVSSDFNSDT HSSTFDAGAGIALNDHFVKLISWYDNEFGYSNRVVDLMAHMASKE |
| **Host** | Mouse |
| **Reactivity** | Human, Mouse, Rat |
| **Isotype** | IgG1 Kappa |
| **Quality Control Testing** | Antibody Reactive Against Recombinant Protein.<br>Western Blot detection against Immunogen (37.84 KDa) . |
| **Storage Buffer** | In 1x PBS, pH 7.4 |
| **Storage Instruction** | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing. |

## Applications

- Western Blot (Cell lysate)

  GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in NIH/3T3(Cat # L018V1 ).

  Protocol Download

- Western Blot (Cell lysate)

  GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in Raw 264.7(Cat # L024V1 ).

  Protocol Download

- Western Blot (Cell lysate)

  GAPDH monoclonal antibody (M01), clone 3C2 Western Blot analysis of GAPDH expression in A-431 ( Cat # L015V1 ).

  Protocol Download

- Western Blot (Cell lysate)

  GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in PC-12(Cat # L012V1 ).

  Protocol Download

- Western Blot (Cell lysate)

  GAPDH monoclonal antibody (M01), clone 3C2. Western Blot analysis of GAPDH expression in HeLa ( Cat # L013V1 ).

  Protocol Download

- Western Blot (Transfected lysate)

  Western Blot analysis of GAPDH expression in transfected 293T cell line by GAPDH monoclonal antibody (M01), clone 3C2.

  Lane 1: GAPDH transfected lysate(36.1 KDa).
  Lane 2: Non-transfected lysate.

  Protocol Download

- Western Blot (Recombinant protein)

  Protocol Download

- Sandwich ELISA (Recombinant protein)

  Detection limit for recombinant GST tagged GAPDH is 0.03 ng/ml as a capture antibody.

  Protocol Download

- ELISA

## Gene Info — GAPDH

| | |
|---|---|
| **Entrez GeneID** | 2597 |
| **GeneBank Accession#** | NM_002046 |
| **Protein Accession#** | NP_002037 |
| **Gene Name** | GAPDH |
| **Gene Alias** | G3PD, GAPD, MGC88685 |
| **Gene Description** | glyceraldehyde-3-phosphate dehydrogenase |
| **Omim ID** | 138400 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | 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 enzyme exists as a tetramer of identical chains. Many pseudogenes similar to this locus are present in the human genome. [provided by RefSeq |
| **Other Designations** | OTTHUMP00000174431\|OTTHUMP00000174432\|aging-associated gene 9 protein\|glyceraldehyde 3-phosphate dehydrogenase |

## Publication Reference

- Acyl-Coenzyme A Synthetase Long-Chain Family Member 4 Is Involved in Viral Replication Organelle Formation and Facilitates Virus Replication via Ferroptosis.

  Yu-An Kung, Huan-Jung Chiang, Mei-Ling Li, Yu-Nong Gong, Hsin-Ping Chiu, Chuan-Tien Hung, Peng-Nien Huang, Sheng-Yu Huang, Pei-Yu Wang, Tsu-An Hsu, Gary Brewer, Shin-Ru Shih.

  Mbio 2022 Jan; 13(1):e0271721.

  Application: WB-Tr, Human, A-549 cells

- Experimental study of expression profile and specific role of human microRNAs in regulating atrophic bone nonunion.

  Junqiang Wei, Hua Chen, Yangmu Fu, Boxun Zhang, Lihai Zhang, Sheng Tao, Feng Lin.

  Medicine 2020 Sep; 99(36):e21653.

  Application: WB-Tr, Human, Human bone marrow stromal cells

- Rosmarinic Acid Exhibits Broad Anti-Enterovirus A71 Activity by Inhibiting the Interaction between the Five-Fold Axis of Capsid VP1 and Cognate Sulfated Receptors.

  Chung-Fan Hsieh, Jia-Rong Jheng, Guan-Hua Lin, Yu-Li Chen, Jin-Yuan Ho, Chien-Jou Liu, Kuei-Yang Hsu, Yuan-Siao Chen, Yoke Fun Chan, Hui-Ming Yu, Pei-Wen Hsieh, Jyh-Haur Chern, Jim-Tong Horng.

  Emerging Microbes & Infections 2020 May; 9(1):1194.

  Application: WB, Human, RD cells

- Mannose receptor is an HIV restriction factor counteracted by Vpr in macrophages.

  Lubow J, Virgilio MC, Merlino M, Collins DR, Mashiba M, Peterson BG, Lukic Z, Painter MM, Gomez-Rivera F, Terry V, Zimmerman G, Collins KL.

  Elife 2020 Mar; 9:e51035.

  Application: WB-Ce, Human, Monocyte derived macrophages

- GNS561, a new lysosomotropic small molecule, for the treatment of intrahepatic cholangiocarcinoma.

  Brun S, Bassissi F, Serdjebi C, Novello M, Tracz J, Autelitano F, Guillemot M, Fabre P, Courcambeck J, Ansaldi C, Raymond E, Halfon P.

  Investigational New Drugs 2019 Dec; 37(6):1135.

  Application: WB, Human, RBE cells

- ISGF3 with reduced phosphorylation is associated with constitutive expression of interferon-induced genes in aging cells.

  Yamagami M, Otsuka M, Kishikawa T, Sekiba K, Seimiya T, Tanaka E, Suzuki T, Ishibashi R, Ohno M, Koike K.

  NPJ Aging and Mechanisms of Disease 2018 Nov; 4:11.

  Application: WB, Human, Huh7 cells, Human dermal fibroblasts

- A large-scale proteomic identification of targets of cellular miR-197 downregulated by enterovirus A71.

  Tang WF, Huang RT, Chien KY, Tang P, Horng JT.

  Journal of Proteome Research 2018 Oct; [Epub].

  Application: WB-Tr, Human, RD cells

- A novel role of ER stress signal transducer ATF6 in regulating enterovirus A71 viral protein stability.

  Jheng JR, Lau KS, Lan YW, Horng JT.

  Journal of Biomedical Science 2018 Jan; 25(1):9.

  Application: WB-Ce, Human, RD cells

- Inhibition of autolysosome formation in host autophagy by Trypanosoma cruzi infection.

  Onizuka Y, Takahashi C, Uematsu A, Shinjo S, Seto E, Nakajima-Shimada J.

  Acta Tropica 2017 Feb; 170:57.

  Application: WB, Human, HT1080 cells

- Supplementation of strontium to a chondrogenic medium promotes chondrogenic differentiation of human dedifferentiated fat cells.

  Okita N, Honda Y, Kishimoto N, Liao W, Azumi E, Hashimoto Y, Matsumoto N.

  Tissue Engineering. Part A 2015 Sep; 21(9-10):1695.

  Application: WB-Ce, Human, DFAT-A cells

- RacGTPase-activating protein 1 interacts with hepatitis C virus polymerase NS5B to regulate viral replication.

  Wu MJ, Ke PY, Horng JT.

  Biochemical and Biophysical Research Communications 2014 Nov; 454(1):19.

  Application: WB-Tr, Human, Huh7 cells

- Radioprotective effects of genistein on HL-7702 cells via the inhibition of apoptosis and DNA damage.

  Song L, Ma L, Cong F, Shen X, Jing P, Ying X, Zhou H, Jiang J, Yan H.

  Cancer Letters 2015 Sep; 366(1):100.

  Application: WB, Human, Embryo liver L-02 cells

- miR-106b is overexpressed in medulloblastomas and interacts directly with PTEN.

  Li KK, Xia T, Ma FM, Zhang R, Mao Y, Wang Y, Zhou L, Lau KM, Ng HK.

  Neuropathology and Applied Neurobiology 2015 Feb; 41(2):145.

  Application: WB-Ce, Human, DAOY, ONS-76 cells

- Reticulon 3 interacts with NS4B of the hepatitis C virus and negatively regulates viral replication by disrupting NS4B self-interaction.

  Wu MJ, Ke PY, Hsu JT, Yeh CT, Horng JT.

  Cellular Microbiology 2014 Nov; 16(11):1603.

  Application: WB-Tr, Human, AVA5, Huh7 cells

- Receptor for Activated Protein Kinase C: Requirement for Efficient MicroRNA Function and Reduced Expression in Hepatocellular Carcinoma.

  Otsuka M, Takata A, Yoshikawa T, Kojima K, Kishikawa T, Shibata C, Takekawa M, Yoshida H, Omata M, Koike K.

  PLoS One 2011 Sep; 6(9):e24359.

  Application: WB-Tr, Human, Huh7 cells

- Expression and roles of Slit/Robo in human ovarian cancer.

  Dai CF, Jiang YZ, Li Y, Wang K, Liu PS, Patankar MS, Zheng J.

  Histochemistry and Cell Biology 2011 May; 135(5):475.

  Application: WB, Human, OVCAR-3, SKOV-3 cells

- Anti-angiogenic effect of triterpenoidal saponins from Polygala senega.

  Arai M, Hayashi A, Sobou M, Ishida S, Kawachi T, Kotoku N, Kobayashi M.

  Journal of Natural Medicines 2011 Jan; 65(1):149.

  Application: WB, Human, HUVECs

- The Effect of Allelic Variation in Aldo-Keto Reductase 1C2 on the In Vitro Metabolism of Dihydrotestosterone.

  Takahashi RH, Grigliatti TA, Reid RE, Riggs KW.

  The Journal of Pharmacology and Experimental Therapeutics 2009 Jun; 329(3):1032.

  Application: WB-Tr, Insect, Sf9, T.ni cells

## Pathway

- Biosynthesis of alkaloids derived from histidine and purine
- Biosynthesis of alkaloids derived from ornithine
- Biosynthesis of alkaloids derived from shikimate pathway
- Biosynthesis of alkaloids derived from terpenoid and polyketide
- Biosynthesis of phenylpropanoids
- Biosynthesis of plant hormones

- Biosynthesis of terpenoids and steroids
- Glycolysis / Gluconeogenesis
- Metabolic pathways

## Disease

- Alzheimer disease
- Cardiovascular Diseases
- Diabetes Complications
- Metabolic Syndrome X
- Neoplasms
- Nerve Degeneration
- Osteoporosis