10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody

Our Anti-Glyceraldehyde 3-Phosphate Dehydrogenase primary antibody from PhosphoSolutions is mouse mo

Catalog # AN1421

Specification

Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P00355
Reactivity	**Bovine, Chicken**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgM**
Calculated MW	**35836**

Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody - Additional Information

Gene ID **396823**

Other Names

38 kDa BFA-dependent ADP-ribosylation substrate antibody, aging associated gene 9 protein antibody, Aging-associated gene 9 protein antibody, BARS-38 antibody, cb609 antibody, EC 1.2.1.12 antibody, Epididymis secretory sperm binding protein Li 162eP antibody, G3P_HUMAN antibody, G3PD antibody, G3PDH antibody, GAPD antibody, GAPDH antibody, Glyceraldehyde 3 phosphate dehydrogenase antibody, Glyceraldehyde-3-phosphate dehydrogenase antibody, HEL-S-162eP antibody, KNC-NDS6 antibody, MGC102544 antibody, MGC102546 antibody, MGC103190 antibody, MGC103191 antibody, MGC105239 antibody, MGC127711 antibody, MGC88685 antibody, OCAS, p38 component antibody, OCT1 coactivator in S phase, 38-KD component antibody, peptidyl cysteine S nitrosylase GAPDH antibody, Peptidyl-cysteine S-nitrosylase GAPDH antibody, wu:fb33a10 antibody

Target/Specificity

Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) is a metabolic enzyme responsible for catalyzing one step in the glycolytic pathway, the reversible oxidative phosphorylation of glyceraldehyde 3-phosphate. Because GAPDH is a protein expressed in large amounts and which is required at all times for important "house keeping" functions, levels of GAPDH mRNA are often measured and used as standards in studies of mRNA expression. Increasingly, scientists are making use of specific antibodies to GAPDH in comparable studies of levels of protein expression. This antibody can be used as a loading control for western blotting experiments, allowing comparison between the level of this protein and others in a cell or tissue. Apart from a role in glycolysis, GAPDH may have other roles such as in the activation of transcription (1). GAPDH is reported to bind to a variety of other proteins, including the amyloid precursor protein, mutations in which cause some forms of Alzheimer's disease, and the polyglutamine tracts of Huntingtin, the protein product aberrant forms of which are causative of Huntington's disease (2,3). Associations with actin and tubulin have also been reported. The protein may also have a role in the regulation of apoptosis, and interestingly migrates from the cytoplasm into the nucleus when cells become apoptotic (4).

Dilution

WB~~1:1000
IHC~~1:100~500

Format
Protein G Purified

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

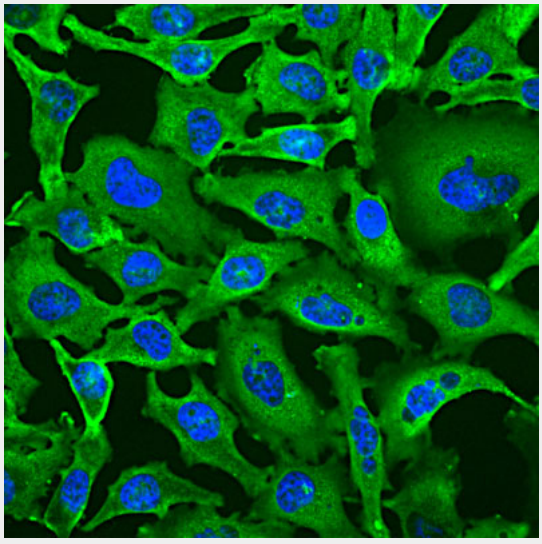
Shipping
Blue Ice

Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody - Images



Immunostaining of HeLa cells labeled with Anti-GAPDH(cat. 600-GAPDH, 1:100, green) and nuclear staining with DAPI (blue). The anti-GAPDH produces strong cytoplasmic labeling of healthy cells.

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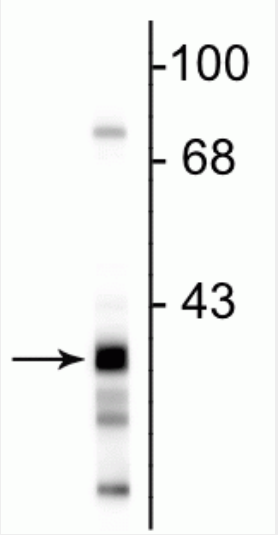
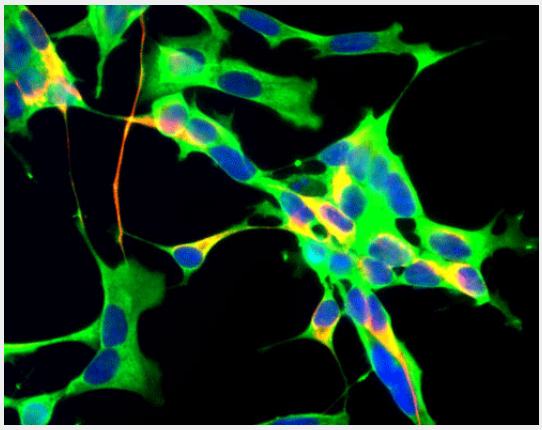


Western blot of rat hippocampal lysate showing the specific immunolabeling of ~38 kDa GAPDH protein.



Immunostaining of Human neuroblastoma SH-SY5Y cells labeled with Anti-GAPDH(cat. 600-GAPDH, 1:100, green), Anti NF-H(cat. 1451-NFH , red, 1:25,000) and nuclear staining with DAPI (blue).

Anti-Glyceraldehyde 3-Phosphate Dehydrogenase Antibody - Background

Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) is a metabolic enzyme responsible for catalyzing one step in the glycolytic pathway, the reversible oxidative phosphorylation of glyceraldehyde 3-phosphate. Because GAPDH is a protein expressed in large amounts and which is required at all times for important "house keeping" functions, levels of GAPDH mRNA are often measured and used as standards in studies of mRNA expression. Increasingly, scientists are making use of specific antibodies to GAPDH in comparable studies of levels of protein expression. This antibody can be used as a loading control for western blotting experiments, allowing comparison between the level of this protein and others in a cell or tissue. Apart from a role in glycolysis, GAPDH may have other roles such as in the activation of transcription (1). GAPDH is reported to bind to a variety of other proteins, including the amyloid precursor protein, mutations in which cause some forms of Alzheimer's disease, and the polyglutamine tracts of Huntingtin, the protein product aberrant forms of which are causative of Huntington's disease (2,3). Associations with actin and tubulin have also been reported. The protein may also have a role in the regulation of apoptosis, and interestingly migrates from the cytoplasm into the nucleus when cells become apoptotic (4).