

**Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody**  
**Mouse monoclonal antibody**  
**Catalog # AN1142**

**Specification**

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**Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">O14556</a>
Reactivity	Human, Mouse, Rat
Predicted	Bovine
Host	mouse
Clonality	monoclonal
Isotype	IgM
Calculated MW	38 KDa

**Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody - Additional Information**

Gene ID	26330
Gene Name	GAPDHS

**Other Names**

Glyceraldehyde-3-phosphate dehydrogenase, testis-specific, Spermatogenic cell-specific glyceraldehyde 3-phosphate dehydrogenase 2, GAPDH-2, Spermatogenic glyceraldehyde-3-phosphate dehydrogenase, GAPDHS, GAPD2, GAPDH2, GAPDS

**Target/Specificity**

Purified porcine GAPDH.

**Dilution**

WB~~ 1:1000

IF~~ 1:100

**Format**

Unpurified, concentrated culture supernatant.

**Antibody Specificity**

Specific for the ~38k Glyceraldehyde 3-Phosphate Dehydrogenase(GAPDH) protein.

**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**

Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

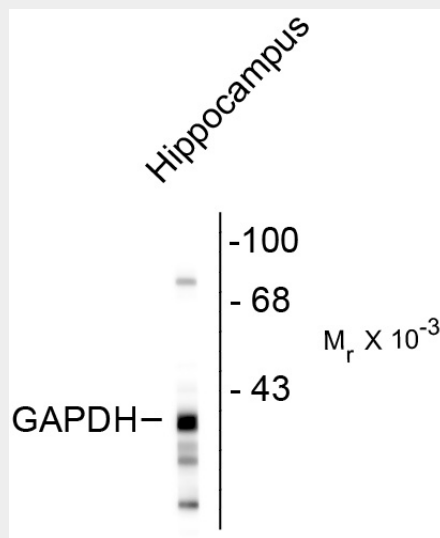
Blue Ice

## Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody - Protocols

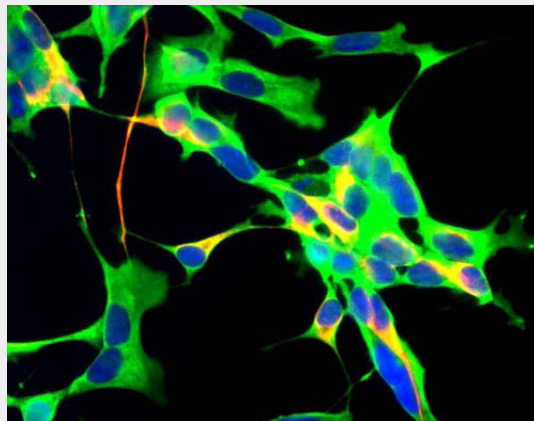
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody - Images



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



Human neuroblastoma SH-SY5Y cells stained with mouse anti-GAPDH (green), chicken antibody to neurofilament NF-H (red) and DNA (blue).

## Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) 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).

### **Glyceraldehyde 3-Phosphate Dehydrogenase (GAPDH) Antibody - References**

1. Morgenegg G, Winkler GC, Hubscher U, Heizmann CW, Mous J, Kuenzle CC. Glyceraldehyde-3-phosphate dehydrogenase is a nonhistone protein and a possible activator of transcription in neurons. *J Neurochem.* 47:54-62 (1986).
2. Schulze H, Schuler A, Stuber D, Dobeli H, Langern H & Huber G. Rat brain glyceraldehyde-3-phosphate dehydrogenase interacts with the recombinant cytoplasmic domain of Alzheimer's beta-amyloid precursor protein. *J Neurochem.* 60:1915-22 (1993).
3. Burke JR, Enghild JJ, Martin ME, Jou Y-S, Myers RM, Roses AD, Vance JM & Strittmatter WJ. Huntingtin and DRPLA proteins selectively interact with the enzyme GAPDH. *Nature Med.* 2: 347-350 (1996).
4. Dastoor Z. & Dreyer, J-L. Potential role of nuclear translocation of glyceraldehyde-3-phosphate dehydrogenase in apoptosis and oxidative stress. *J. Cell Sci.* 114:1643-1653 (2001).