

# Goat anti-GAPDH (Internal), Biotinylated Antibody

Peptide-affinity purified goat antibody Catalog # AF4382a

## **Specification**

# Goat anti-GAPDH (Internal), Biotinylated Antibody - Product Information

Application WB, IHC, Pep-ELISA

Primary Accession P04406

Other Accession <u>NP\_002037.2</u>, <u>NP\_001243728.1</u>

Reactivity
Host
Clonality
Calculated MW

Human
Goat
Polyclonal
36053

## Goat anti-GAPDH (Internal), Biotinylated Antibody - Additional Information

### **Gene ID 2597**

### **Other Names**

GAPDH; glyceraldehyde-3-phosphate dehydrogenase; G3PD; GAPD; HEL-S-162eP; aging-associated gene 9 protein; epididymis secretory sperm binding protein Li 162eP; peptidyl-cysteine S-nitrosylase GAPDH

## **Dilution**

WB~~1:1000 IHC~~1:100~500 Pep-ELISA~~N/A

### **Format**

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

# **Immunogen**

This antibody is expected to recognize both reported isoforms (NP\_002037.2; NP\_001243728.1). Reported variants represent identical protein: NP\_001276674.1, NP\_002037.2, NP\_001276675.1. GAPDH is constitutively expressed in almost all tissues at high levels

### 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**

Goat anti-GAPDH (Internal), Biotinylated Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Goat anti-GAPDH (Internal), Biotinylated Antibody - Protein Information



Name GAPDH {ECO:0000303|PubMed:2987855, ECO:0000312|HGNC:HGNC:4141}

## **Function**

Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively (PubMed: <a href="http://www.uniprot.org/citations/11724794" target=" blank">11724794</a>, PubMed:<a href="http://www.uniprot.org/citations/3170585" target=" blank">3170585</a>). Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by converting D- glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate (PubMed:<a href="http://www.uniprot.org/citations/11724794" target=" blank">11724794</a>, PubMed:<a href="http://www.uniprot.org/citations/3170585" target=" blank">3170585</a>). Modulates the organization and assembly of the cytoskeleton (By similarity). Facilitates the CHP1- dependent microtubule and membrane associations through its ability to stimulate the binding of CHP1 to microtubules (By similarity). Component of the GAIT (gamma interferon-activated inhibitor of translation) complex which mediates interferon-gamma-induced transcript-selective translation inhibition in inflammation processes (PubMed:<a href="http://www.uniprot.org/citations/23071094" target=" blank">23071094</a>). Upon interferon-gamma treatment assembles into the GAIT complex which binds to stem loop-containing GAIT elements in the 3'-UTR of diverse inflammatory mRNAs (such as ceruplasmin) and suppresses their translation (PubMed:<a href="http://www.uniprot.org/citations/23071094" target=" blank">23071094</a>). Also plays a role in innate immunity by promoting TNF-induced NF-kappa-B activation and type I interferon production, via interaction with TRAF2 and TRAF3, respectively (PubMed: <a href="http://www.uniprot.org/citations/23332158" target=" blank">23332158</a>, PubMed:<a href="http://www.uniprot.org/citations/27387501" target=" blank">27387501</a>). Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis (By similarity). Nuclear functions are probably due to the nitrosylase activity that mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2 and PRKDC (By similarity).

## **Cellular Location**

Cytoplasm, cytosol. Nucleus {ECO:0000250|UniProtKB:P04797}. Cytoplasm, perinuclear region. Membrane Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P04797} Note=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) {ECO:0000250|UniProtKB:P04797, ECO:0000269|PubMed:12829261}

# Goat anti-GAPDH (Internal), Biotinylated 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

Goat anti-GAPDH (Internal), Biotinylated Antibody - Images