

Product datasheet for **TA336632**

GAPDH Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:2000-1:10000, IF: 1:50, IHC: 1:100 - 1:500, IHC-P: 1:100 - 1:500, Proximity Ligation Assay 1:200 - 1:4000
Reactivity:	Human, Mouse, Xenopus
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide made to an internal region of human GAPDH (between residues 250 and 300)[accession number NP_002037.2]
Formulation:	Tris-citrate/phosphate, pH 7, 0.1% Sodium azide. Store at 4C. Do not freeze.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	38 kDa
Gene Name:	glyceraldehyde-3-phosphate dehydrogenase
Database Link:	NP_002037 Entrez Gene 14433 Mouse Entrez Gene 2597 Human P04406



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Background:

GAPDH (glyceraldehyde-3-phosphate dehydrogenase or GAPD) is a key enzyme in glycolytic pathway, wherein it catalyzes the first step by converting D-glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate. It localizes mainly in the cytoplasm from where it translocates to nucleus following S-nitrosylation and interaction with SIAH1. Nuclear GAPDH implicates in transcription, RNA transport, DNA replication and apoptosis, via its nitrosylase activity which mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2, PRKDC etc. GAPDH also regulates the organization/assembly of cytoskeleton and facilitates CHP1-dependent microtubule - membrane associations. It is a component of GAIT (gamma interferon-activated inhibitor of translation) complex which mediates IFN-gamma-induced transcript-selective translation inhibition in inflammation. Because of its expression as housekeeping protein in most cell types, GAPDH is often used as a control molecule in various genes expression studies, however, recent evidence has shown the association of its altered expression with neurodegenerative pathologies such as Huntington disease, Alzheimer's disease etc., and elevated GAPDH mRNA/protein expression levels have been seen in pancreatic, lung and prostate cancers.

Synonyms:

G3PD; GAPD; HEL-S-162eP

Note:

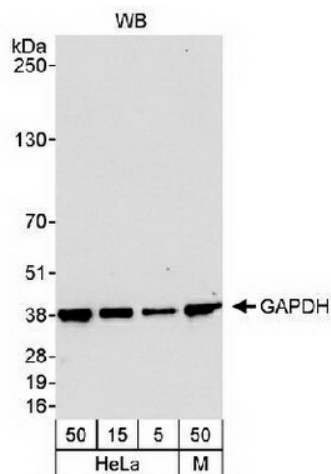
This GAPDH antibody is useful for Immunohistochemistry-paraffin, Immunocytochemistry/Immunofluorescence and Western blot applications. In WB, a specific band is observed at ~36 kDa molecular weight position. In Immunohistochemistry, epitope retrieval with citrate buffer pH6.0 is recommended for formalin-fixed paraffin-embedded tissue sections.

Protein Families:

ES Cell Differentiation/IPS

Protein Pathways:

Alzheimer's disease, Glycolysis / Gluconeogenesis, Metabolic pathways

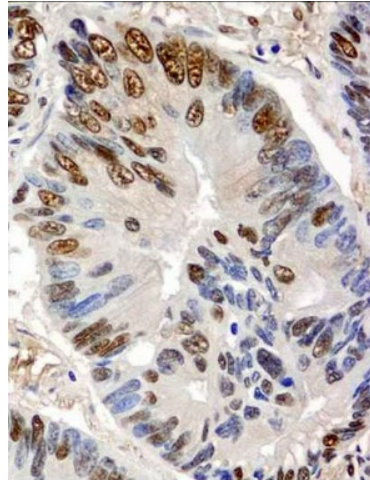
Product images:


Western Blot: GAPDH Antibody TA336632 - Detection of Human and Mouse GAPDH Whole cell lysate from HeLa (5, 15 and 50 mcg) and mouse NIH3T3 (M; 50 mcg). Affinity purified rabbit anti-GAPDH antibody used at 0.04 mcg/ml. Chemiluminescence with an exposure

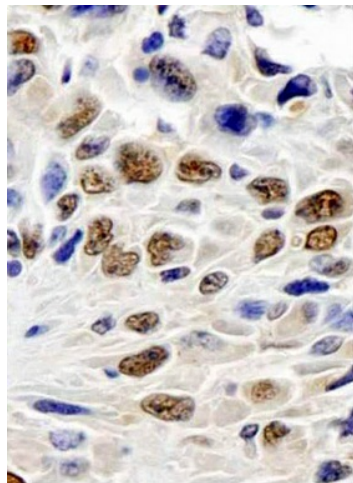
Neuroblastoma Samples

Western Blot: GAPDH Antibody TA336632 - Neuroblastoma GAPDH antibody loading control. Image from verified customer review.

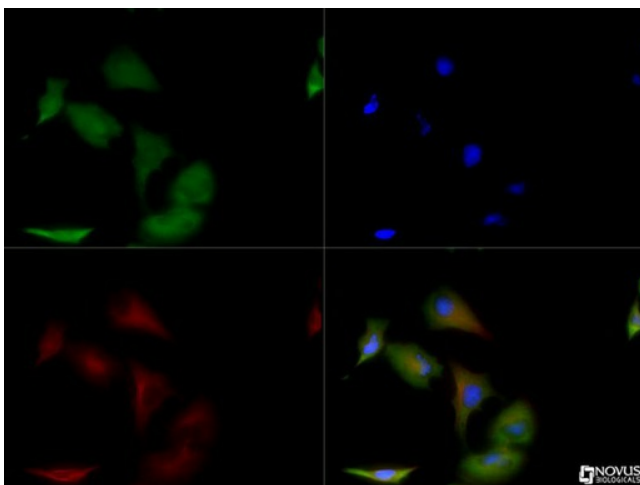
GAPDH



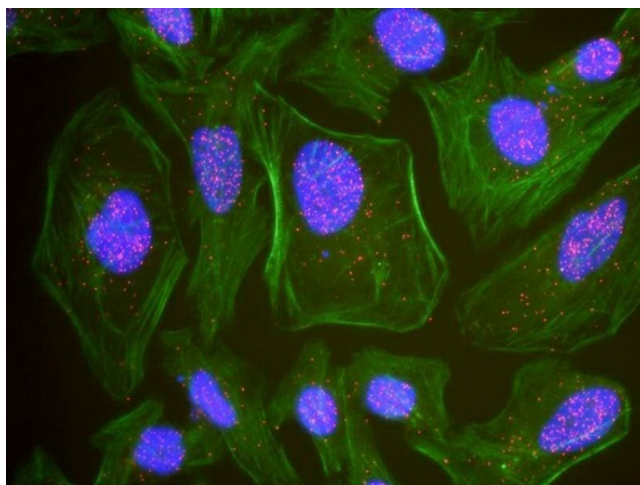
Immunohistochemistry-Paraffin: GAPDH Antibody TA336632 - IHC detection of GAPDH in formalin-fixed paraffin-embedded human lung carcinoma tissue sections with TA336632 at a dilution of 1:200



Immunohistochemistry-Paraffin: GAPDH Antibody TA336632 - IHC detection of GAPDH in formalin-fixed paraffin-embedded mouse squamous cell carcinoma tissue sections with TA336632 at a dilution of 1:200.



Immunocytochemistry/Immunofluorescence: GAPDH Antibody TA336632 - GAPDH antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Proximity Ligation Assay: GAPDH Antibody TA336632 - Image showing representative results for Proximity Ligation Assay (PLA) using three color fluorescence, including DAPI stained nuclei (blue), phalloidin stained cytoplasmic F-actin (green), and PLA po