

## Product datasheet for **TA336633**

### GAPDH Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:2000-1:10000, IF: 1:250
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to a C-terminal portion of the human GAPDH protein (between residues 300-335) [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:	<a href="#">NP_002037</a> <a href="#">Entrez Gene 14433 Mouse</a> <a href="#">Entrez Gene 2597 Human</a> <a href="#">P04406</a>



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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:**

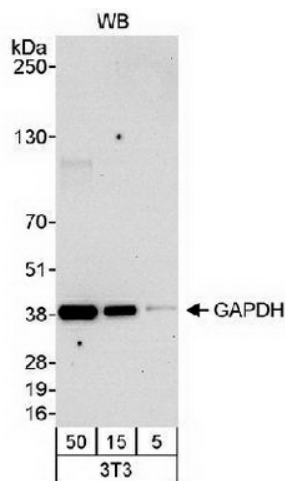
This GAPDH antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where a band is observed ~36 kDa.

**Protein Families:**

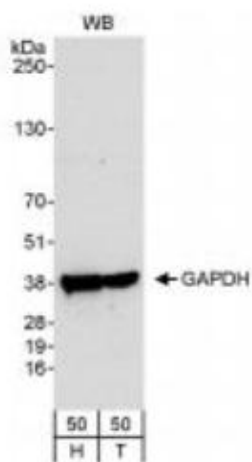
ES Cell Differentiation/IPS

**Protein Pathways:**

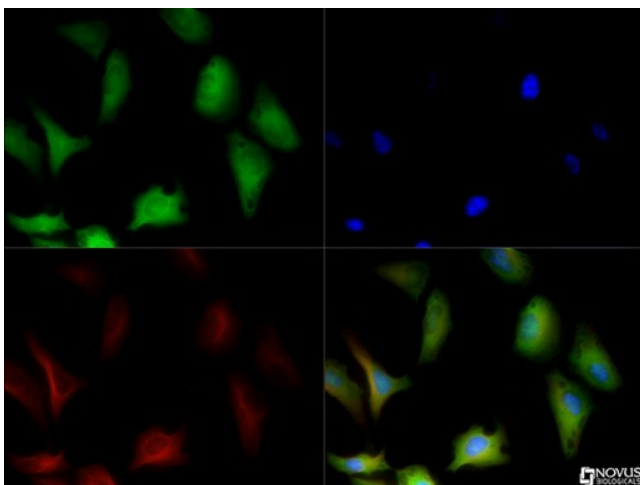
Alzheimer's disease, Glycolysis / Gluconeogenesis, Metabolic pathways

**Product images:**

Western Blot: GAPDH Antibody TA336633 - Detection of Mouse GAPDH Whole cell lysate (5, 15 and 50 ug) from mouse NIH3T3 cells. Another Affinity purified rabbit anti-GAPDH used at 0.04 mcg/ml. Chemiluminescence with an exposure time of 30 seconds.



Western Blot: GAPDH Antibody TA336633 - Whole cell lysate (50 ug) from HeLa (H) and 293T (50 ug) probed with GAPDH Antibody diluted at 0.04 ug/ml



Immunocytochemistry/Immunofluorescence: GAPDH Antibody TA336633 - GAPDH antibody was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).