

## Product datasheet for **TA336635**

### GAPDH Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:5000, IF: 1:500-1:1000
Reactivity:	Human, Mouse, Rat, Bovine, Chicken, Avian, Invertebrate
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Full length GAPDH purified from bovine brain. [UniProt# P10096]
Formulation:	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Whole antisera
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 24383 Rat</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:**

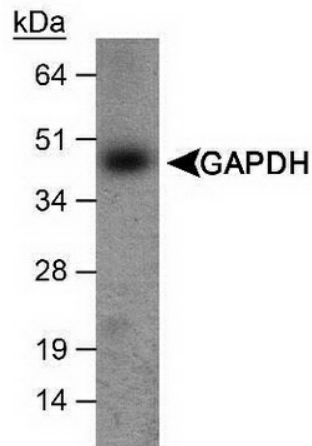
This GAPDH antibody is useful Immunocytochemistry/Immunofluorescence and Western blot. In Western blot a band is observed at ~38kDa, and on cells in tissue culture the antibody stains in a punctate cytoplasmic fashion.

**Protein Families:**

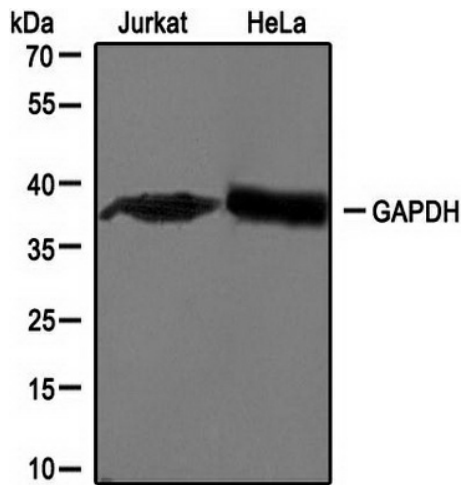
ES Cell Differentiation/IPS

**Protein Pathways:**

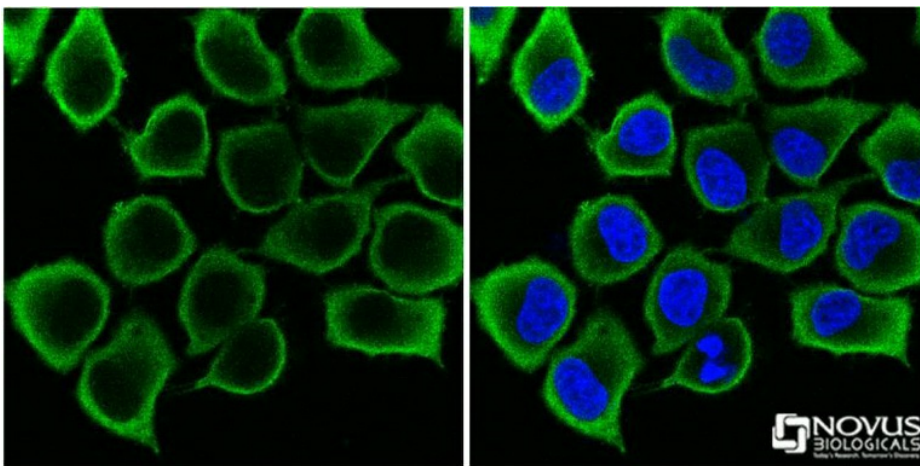
Alzheimer's disease, Glycolysis / Gluconeogenesis, Metabolic pathways

**Product images:**

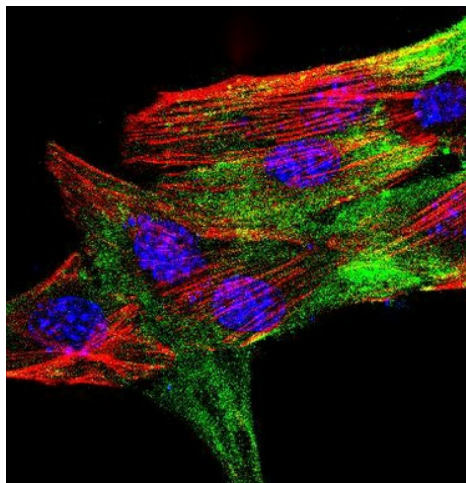
Western Blot: GAPDH Antibody TA336635 - Detection of GAPDH in mouse liver.



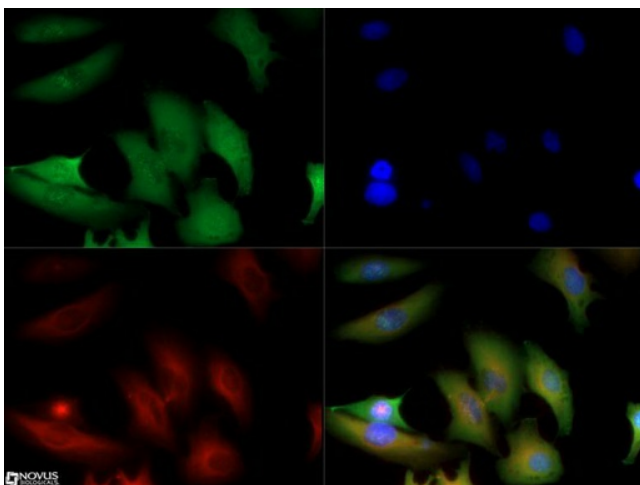
Western Blot: GAPDH Antibody TA336635 - Western blot analysis of extracts from Jurkat and HeLa cells using TA336635 at 1:1000



Immunocytochemistry/Immunofluorescence: GAPDH Antibody TA336635 - Confocal immunofluorescence analysis of HeLa cells using GAPDH (TA336635) antibody (green). Nuclei was counterstained with DAPI (blue).



Immunocytochemistry/Immunofluorescence: GAPDH Antibody TA336635 - IF Confocal analysis of C2C12 cells using GAPDH antibody (TA336635, 1:20). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were la



Immunocytochemistry/Immunofluorescence: GAPDH Antibody TA336635 - The GAPDH antibody was tested in HeLa cells at a 1:500 dilution against Dylight 488 (Green). Alpha-tubulin and nuclei were counterstained with Dylight 550 (Red) and DAPI (Blue), respectively.