

Product datasheet for **TA336768**

GAPDH Mouse Monoclonal Antibody [Clone ID: 1A10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	1A10
Applications:	ELISA, FC, ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Flow Cytometry: 5 ug/ml, Immunohistochemistry-Paraffin: 1:200-1:1000, Western Blot: 1:500-1:2000, ELISA: 1:10000, Immunohistochemistry: 1:200-1:1000, Immunocytochemistry/Immunofluorescence: 1:200-1:1000, Simple Western: 1:50
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified recombinant fragment of human GAPDH expressed in E. coli. [UniProt# P04406]
Formulation:	PBS, 0.03% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Ammonium sulfate precipitation
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	37 kDa
Gene Name:	glyceraldehyde-3-phosphate dehydrogenase
Database Link:	NP_002037 Entrez Gene 2597 Human P04406



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Background:

GAPDH is a 146 kDa tetramer composed of four 30-40 kDa subunits. 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 as a protein expressed in large amounts and which is required at all times for an important house keeping functions, levels of GAPDH mRNA are often used as standards in studies of mRNA expression. Increasingly, scientists are making use of specific antibodies to GAPDH as loading controls for western blotting experiments. Apart from a role in glycolysis, GAPDH may have other roles such as in the activation of transcription. 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. Associations with actin and tubulin have also be 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.

Synonyms:

G3PD; GAPD; HEL-S-162eP

Note:

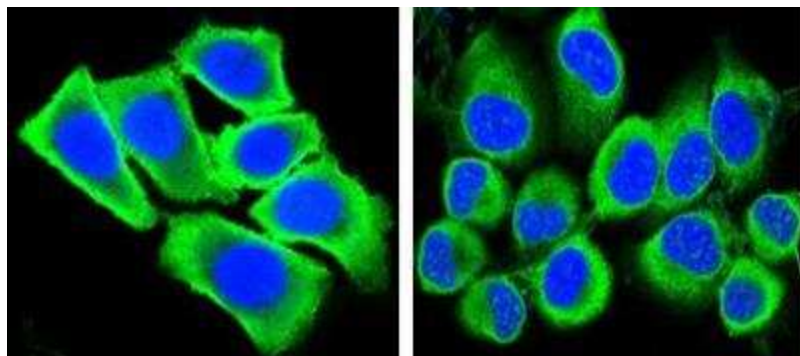
This GAPDH (1A10) antibody is useful for Western blot, Immunohistochemistry on paraffin embedded sections, Immunocytochemistry/Immunofluorescence and ELISA.

Protein Families:

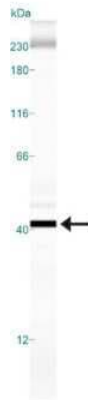
ES Cell Differentiation/IPS

Protein Pathways:

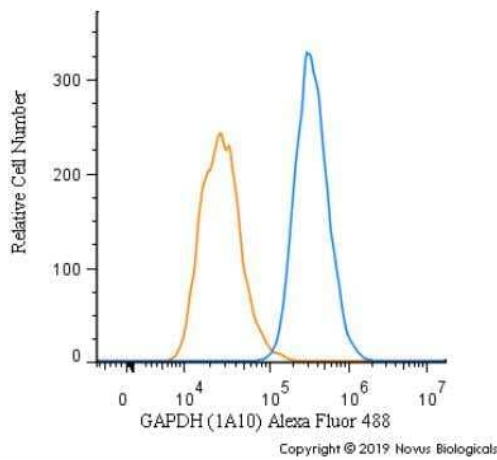
Alzheimer's disease, Glycolysis / Gluconeogenesis, Metabolic pathways

Product images:

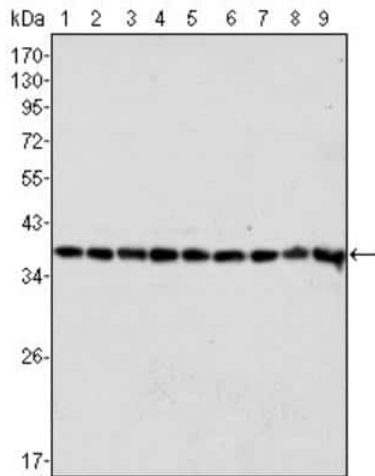
Immunocytochemistry/Immunofluorescence: GAPDH Antibody (1A10) TA336768 - Analysis of methanol-fixed HepG2 (left) and HeLa (right) cells using anti-GAPDH mAb (green), showing cytoplasmic localization. DRAQ5 fluorescent DNA dye (blue).



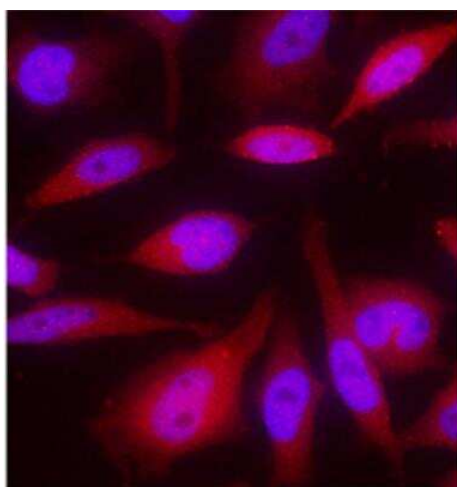
Simple Western: GAPDH Antibody (1A10) TA336768 - Lane view shows a specific band for GAPDH in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. Note: band observed higher than predicted 36 kDa molecular weight.



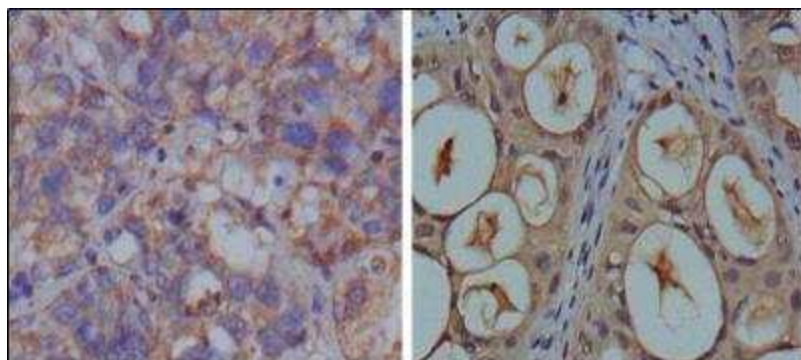
Flow Cytometry: GAPDH Antibody (1A10) TA336768 - An intracellular stain was performed on U-87 cells with GAPDH [1A10] Antibody TA336768AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



Western Blot: GAPDH Antibody (1A10) TA336768 - Analysis using anti-GAPDH mAb against HeLa (1), A549 (2), A431 (3), MCF-7 (4), K562 (5), Jurkat (6), HL60 (7), SKN-SH (8) and SKBR-3 (9) cell lysate. Theoretical molecular weight: 36 kDa.



Immunocytochemistry/Immunofluorescence: GAPDH Antibody (1A10) TA336768 - GAPDH was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using 2 ug/mL of mouse anti-GAPDH monoclonal (NB300-328), 2 ug/mL mL of mouse anti- GAPDH monoclonal (TA336768). Cells were stained using the appropriate secondary antibody donkey anti-mouse IgG-NL557 (NL007) and counterstained with DAPI (blue).



Immunohistochemistry-Paraffin: GAPDH Antibody (1A10) TA336768 - Analysis of paraffin-embedded human breast carcinoma (left) and kidney carcinoma (right), showing cytoplasmic localization using anti-GAPDH mAb with DAB staining.