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Product datasheet for TA336628

GAPDH Mouse Monoclonal Antibody [Clone ID: NB615]

Product data:

Product Type:	Primary Antibodies
Clone Name:	NB615
Applications:	IF, WB
Recommended Dilution:	WB: 1:1000-1:5000, IF: 1:10-1:100
Reactivity:	Human, Mouse, Rat, Bovine, Canine, Chicken, Porcine
Host:	Mouse
Isotype:	IgM
Clonality:	Monoclonal
Immunogen:	Full length native GAPDH from human erythrocytes. [UniProt# P04406]
Formulation:	Preservative: 0.1% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Tissue culture supernatant
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	36 kDa
Gene Name:	glyceraldehyde-3-phosphate dehydrogenase
Database Link:	NP_002037 Entrez Gene 14433 MouseEntrez Gene 24383 RatEntrez Gene 2597 Human P04406

View online »

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.

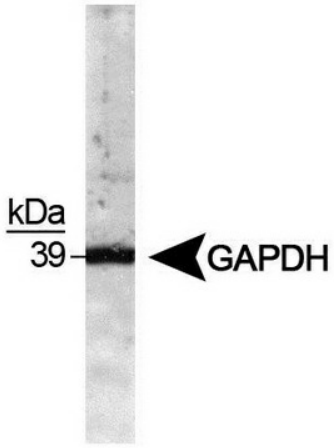
Synonyms: G3PD; GAPD; HEL-S-162eP

Note: This GAPDH antibody is useful for Western blot and Immunocytochemistry/Immunofluorescence. In Western blot a band is observed at ~36 kDa (predicted molecular weight: 40.2 kDa). In ICC/IF, cytoplasmic staining was observed in HeLa cells.

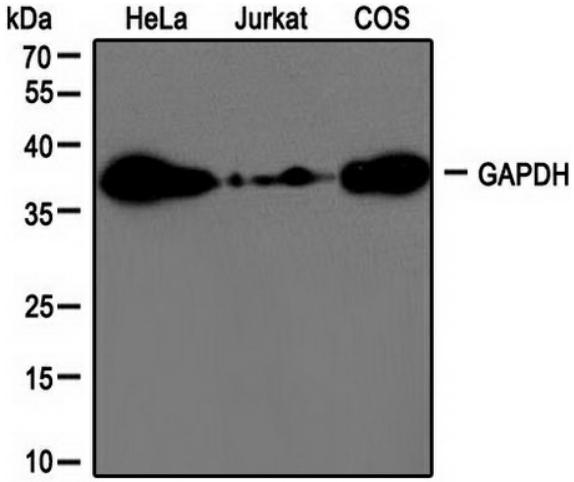
Protein Families: ES Cell Differentiation/IPS

Protein Pathways: Alzheimer's disease, Glycolysis / Gluconeogenesis, Metabolic pathways

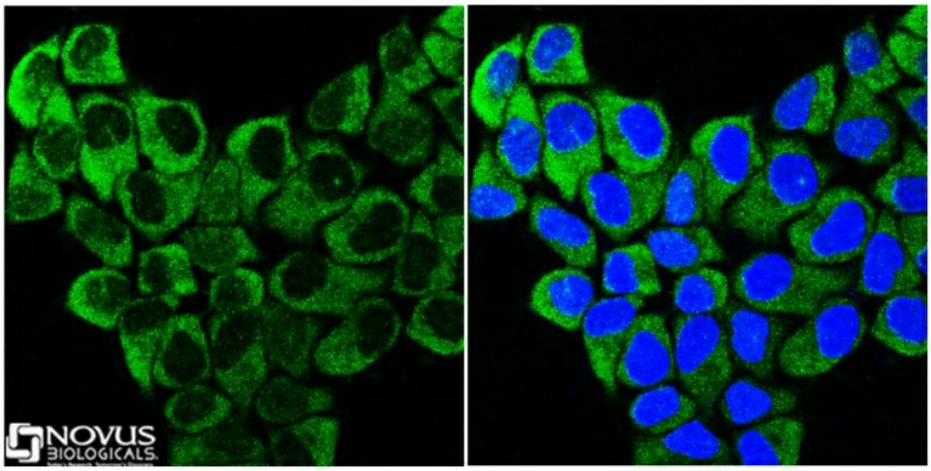
Product images:



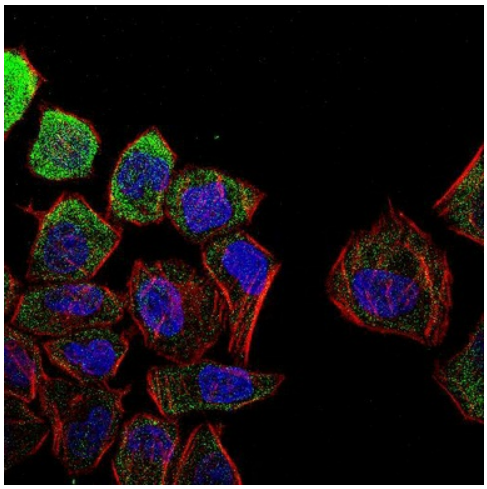
Western Blot: GAPDH Antibody (NB615) TA336628 - Analysis of 40ug HeLa whole cell lysates using TA336628 at a dilution of 1:100.



Western Blot: GAPDH Antibody (NB615) TA336628 - Western blot analysis of HeLa, Jurkat, and COS lysate using GAPDH (TA336628) antibody at 1:100.



Immunocytochemistry/Immunofluorescence: GAPDH Antibody (NB615) TA336628 - Confocal immunofluorescence of HeLa cells using GAPDH antibody at 1:10 (green). Nuclei were counterstained with DAPI (blue).



Immunocytochemistry/Immunofluorescence: GAPDH Antibody (NB615) TA336628 - IF Confocal analysis of Hela cells using GAPDH antibody (NB615) (TA336628, 1:5). An Alexa Fluor 488-conjugated Goat to mouse IgG was used as secondary antibody (green). Actin fila