



# GAPDH Monoclonal Antibody

<b>Catalog No</b>	YP-Ab-03399
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	GAPDH
<b>Protein Name</b>	Glyceraldehyde-3-phosphate dehydrogenase
<b>Immunogen</b>	Purified recombinant fragment of human GAPDH expressed in E. Coli.
<b>Specificity</b>	GAPDH Monoclonal Antibody detects endogenous levels of GAPDH protein.
<b>Formulation</b>	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	Affinity purification
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	GAPDH; GAPD; CDABP0047; OK/SW-cl.12; Glyceraldehyde-3-phosphate dehydrogenase; GAPDH; Peptidyl-cysteine S-nitrosylase GAPDH
<b>Observed Band</b>	
<b>Cell Pathway</b>	Cytoplasm, cytosol . Nucleus . Cytoplasm, perinuclear region . Membrane . Cytoplasm, cytoskeleton . Translocates to the nucleus following S-nitrosylation and interaction with SIAH1, which contains a nuclear localization signal (By similarity). Postnuclear and Perinuclear regions (PubMed:12829261). .
<b>Tissue Specificity</b>	Astrocytoma,Brain,Cajal-Retzius cell,Colon adenocarcinoma,Epithelium
<b>Function</b>	catalytic activity:D-glyceraldehyde 3-phosphate + phosphate + NAD(+) = 3-phospho-D-glyceroyl phosphate + NADH.,function:Independent of its glycolytic activity it is also involved in membrane trafficking in the early secretory pathway.,online information:Glyceraldehyde 3-phosphate dehydrogenase entry,pathway:Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 1.,pathway:Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 1/5.,PTM:Reversible S-nitrosylation of Cys-152 inhibits enzymatic activity and increases endogenous ADP-ribosylation, which inhibits the enzyme in a non-reversible manner. The latter modification is more likely to be a pathophysiological event associated with inhibition of gluconeogenesis.,sequence caution:Differs quite extensively.,similarity:Belongs to the glyceraldehyde-3-phosphate dehydrogenase fami


**Background**

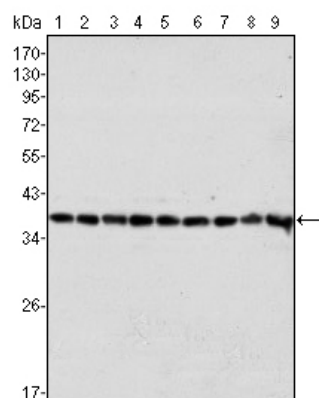
glyceraldehyde-3-phosphate dehydrogenase(GAPDH) Homo sapiens This gene encodes a member of the glyceraldehyde-3-phosphate dehydrogenase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. The product of this gene catalyzes an important energy-yielding step in carbohydrate metabolism, the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD). The encoded protein has additionally been identified to have uracil DNA glycosylase activity in the nucleus. Also, this protein contains a peptide that has antimicrobial activity against *E. coli*, *P. aeruginosa*, and *C. albicans*. Studies of a similar protein in mouse have assigned a variety of additional functions including nitrosylation of nuclear proteins, the regulation of mRNA stability, and acting as a transferri

**matters needing attention**

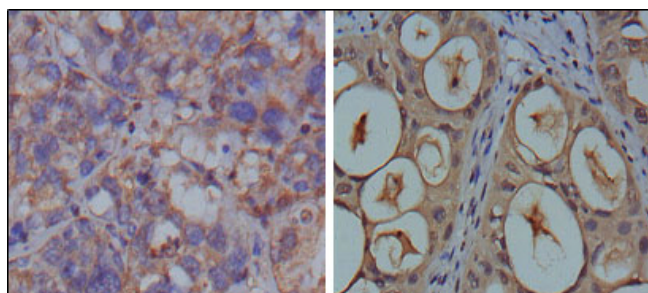
Avoid repeated freezing and thawing!

**Usage suggestions**

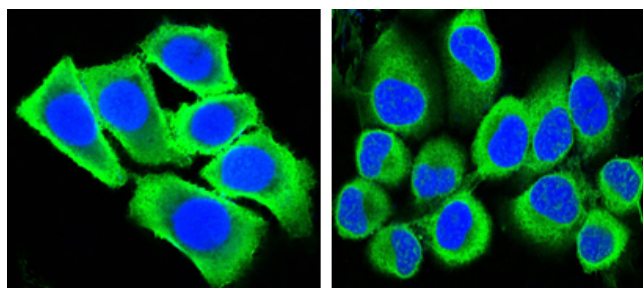
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

**Products Images**


Western Blot analysis using GAPDH Monoclonal Antibody 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.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma (left) and kidney carcinoma (right), showing cytoplasmic localization with DAB staining using GAPDH Monoclonal Antibody.



Confocal immunofluorescence analysis of methanol-fixed HepG2 (left) and Hela (right) cells using GAPDH Monoclonal Antibody (green), showing cytoplasmic localization. Blue: DRAQ5 fluorescent DNA dye.