

GAPDH Antibody

Rabbit mAb

Catalog # AP90017

Product Information

| | |
|--------------------------|---|
| Application | WB, IHC, IF, FC, ICC, IHF |
| Primary Accession | P04406 |
| Reactivity | Rat, Human, Mouse, Monkey, Chicken, Bovine, Dog |
| Clonality | Monoclonal |
| Other Names | aging-associated gene 9 protein; G3P; G3PD; GAPD; GAPDH; glyceraldehyde 3-phosphate dehydrogenase; Glyceraldehyde-3-phosphate dehydrogenase; MGC88685 |
| Isotype | Rabbit IgG |
| Host | Rabbit |
| Calculated MW | 36053 |

Additional Information

| | |
|-------------------------------------|---|
| Dilution | WB 1:3000~1:10000 IHC 1:100~1:250 ICC/IF 1:100~1:250 |
| Purification | Affinity-chromatography |
| Immunogen | A synthesized peptide derived from human GAPDH |
| Description | Glyceraldehyde 3 phosphate dehydrogenase (GAPDH) is well known as one of the key enzymes involved in glycolysis. GAPDH is constitutively abundant expressed in almost cell types at high levels, therefore antibodies against GAPDH are useful as loading controls for Western Blotting. Some pathology factors, such as hypoxia and diabetes, increased or decreased GAPDH expression in certain cell types. |
| Storage Condition and Buffer | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |

Protein Information

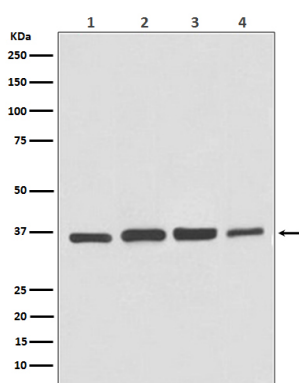
| | |
|-----------------|---|
| Name | GAPDH {ECO:0000303 PubMed:2987855, ECO:0000312 HGNC:HGNC:4141} |
| Function | <p>Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively (PubMed:11724794, PubMed:3170585).</p> <p>Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by converting D- glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate (PubMed:11724794, PubMed:3170585). Modulates the organization and assembly of the cytoskeleton (By similarity). Facilitates the CHP1- dependent microtubule and membrane associations through its ability to stimulate the binding of CHP1 to microtubules (By similarity). Component of the GAIT (gamma interferon-activated inhibitor of translation) complex which mediates</p> |

interferon-gamma-induced transcript-selective translation inhibition in inflammation processes (PubMed:[23071094](#)). Upon interferon-gamma treatment assembles into the GAIT complex which binds to stem loop-containing GAIT elements in the 3'-UTR of diverse inflammatory mRNAs (such as ceruplasmin) and suppresses their translation (PubMed:[23071094](#)). Also plays a role in innate immunity by promoting TNF-induced NF-kappa-B activation and type I interferon production, via interaction with TRAF2 and TRAF3, respectively (PubMed:[23332158](#), PubMed:[27387501](#)). Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis (By similarity). Nuclear functions are probably due to the nitrosylase activity that mediates cysteine S-nitrosylation of nuclear target proteins such as SIRT1, HDAC2 and PRKDC (By similarity).

Cellular Location

Cytoplasm, cytosol. Nucleus {ECO:0000250|UniProtKB:P04797}. Cytoplasm, perinuclear region. Membrane Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P04797} Note=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) {ECO:0000250|UniProtKB:P04797, ECO:0000269|PubMed:12829261}

Images



Western blot analysis of GAPDH expression in (1) HeLa cell lysate; (2) MDBK cell lysate; (3) COS-1 cell lysate; (4) MDCK cell lysate with GAPDH Antibody.

Image not found : 202311/AP90017-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human bladder cancer, using GAPDH Antibody.

Image not found : 202311/AP90017-IF.jpg

Immunofluorescent analysis of Hela cells, using GAPDH Antibody.

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