

GAPDH Antibody
Rabbit Polyclonal Antibody
Catalog # ALS13131**Specification**

GAPDH Antibody - Product Information

Application	IF, WB, IHC
Primary Accession	P04406
Reactivity	Human, Mouse, Rat, Drosophila
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36kDa KDa

GAPDH Antibody - Additional Information**Gene ID** 2597**Other Names**Glyceraldehyde-3-phosphate dehydrogenase, GAPDH, 1.2.1.12, Peptidyl-cysteine S-nitrosylase
GAPDH, 2.6.99.-, GAPDH, GAPD**Target/Specificity**

Human GAPDH

Reconstitution & Storage

Aliquot and store at -20°C. Minimize freezing and thawing.

Precautions

GAPDH Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GAPDH Antibody - Protein Information**Name** GAPDH {ECO:0000303|PubMed:2987855, ECO:0000312|HGNC:HGNC:4141}**Function**

Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively (PubMed:11724794, PubMed:3170585).

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 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}

Volume

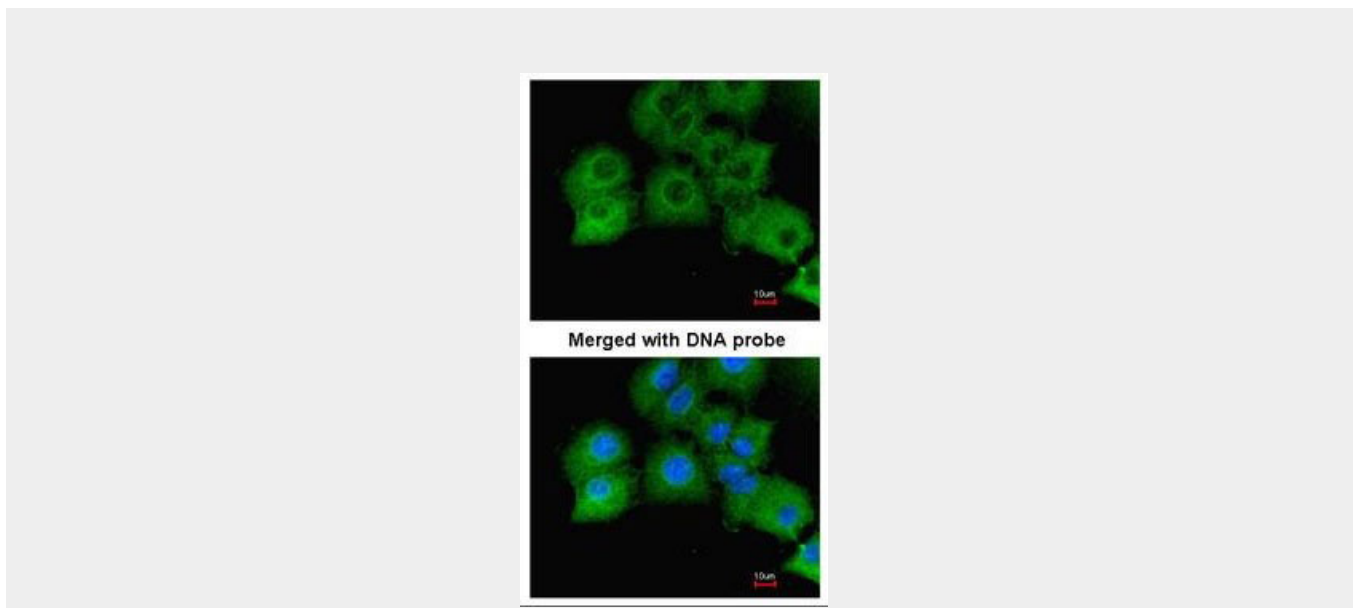
50 µl

GAPDH Antibody - Protocols

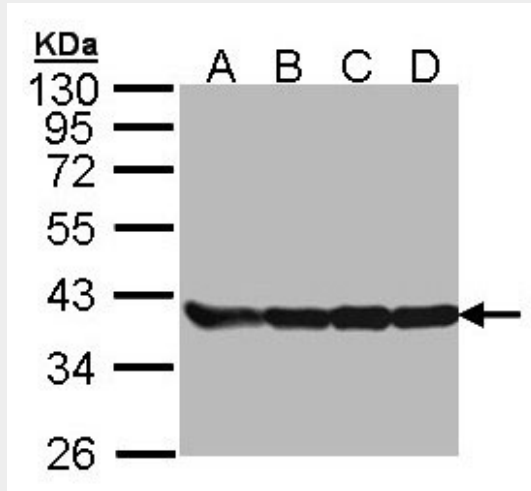
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

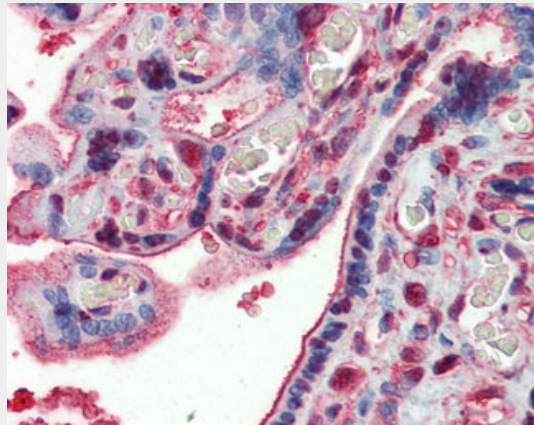
GAPDH Antibody - Images



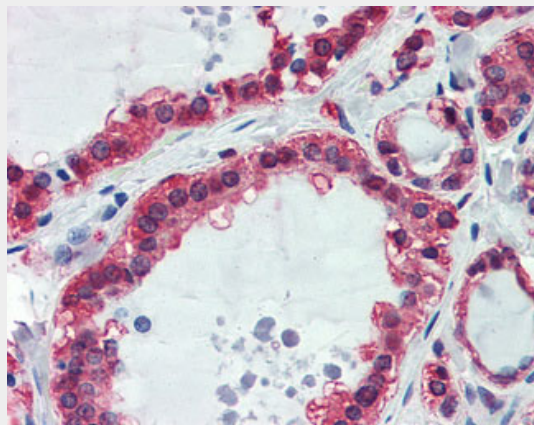
Immunofluorescence of paraformaldehyde-fixed A549, using GAPDH antibody at 1:200 dilution.



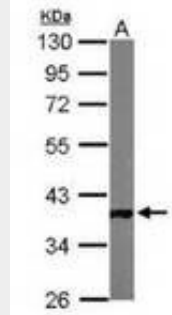
Sample (30 ug of whole cell lysate).



Anti-GAPDH antibody IHC of human placenta.



Anti-GAPDH antibody IHC of human thyroid.



Sample (50 ug of whole cell lysate) A: Mouse Brain. 10% SDS PAGE. ALS13131 diluted at 1:10000.

GAPDH Antibody - Background

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GAPDH Antibody - References

Hanauer A., et al. EMBO J. 3:2627-2633(1984).
Arcari P., et al. Nucleic Acids Res. 12:9179-9189(1984).
Tso J.Y., et al. Nucleic Acids Res. 13:2485-2502(1985).
Tokunaga K., et al. Cancer Res. 47:5616-5619(1987).
Allen R.W., et al. J. Biol. Chem. 262:649-653(1987).