abcam

Product datasheet

Anti-GAPDH antibody [12G11] - Loading Control ab226408

1 Abreviews 3 References 2 Images

Overview

Product name	Anti-GAPDH antibody [12G11] - Loading Control
Description	Mouse monoclonal [12G11] to GAPDH - Loading Control
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat, Sheep, Rabbit, Chicken, Guinea pig, Cow, Turkey, Pig, Carp, Zebrafish, Orangutan, Nile tilapia
Immunogen	Synthetic peptide within Human GAPDH aa 150-200. The exact sequence is proprietary. Database link: **P04406**
Positive control	WB: HeLa, HEK-293T, Jurkat, TCMK-1 and NIH/3T3 whole cell lysates. IHC: Human ovarian carcinoma tissue.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab226408 was affinity purified using an epitope specific to GAPDH immobilized on solid support.

	Purified from TCS.
Clonality	Monoclonal
Clone number	12G11
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226408 in the following tested applications.

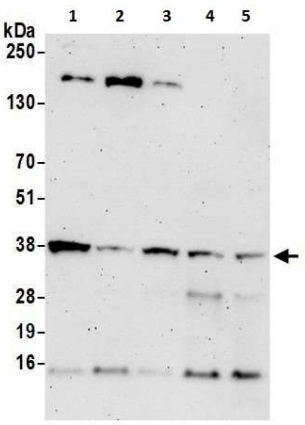
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 36 kDa.
IHC-P		1/20 - 1/50.

Target

Function	Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis. 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). 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.
Pathway	Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 1/5.
Sequence similarities	Belongs to the glyceraldehyde-3-phosphate dehydrogenase family.
Post-translational modifications	S-nitrosylation of Cys-152 leads to interaction with SIAH1, followed by translocation to the nucleus. ISGylated.
Cellular localization	Cytoplasm > cytosol. Nucleus. Cytoplasm > perinuclear region. Membrane. Translocates to the nucleus following S-nitrosylation and interaction with SIAH1, which contains a nuclear localization signal (By similarity). Postnuclear and Perinuclear regions.

Images



Western blot - Anti-GAPDH antibody [12G11] - Loading Control (ab226408)

All lanes : Anti-GAPDH antibody [12G11] - Loading Control (ab226408) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 3 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate
Lane 4 : TCMK-1 (mouse kidney epithelial cell line) whole cell lysate
Lane 5 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate

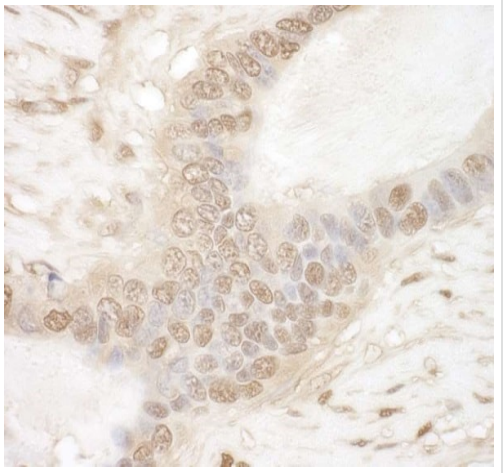
Lysates/proteins at 50 µg per lane.

Developed using the ECL technique.

Predicted band size: 36 kDa

Exposure time: 3 minutes

Cell lysates were prepared using NETN lysis buffer.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GAPDH antibody [12G11] - Loading Control (ab226408)

Formalin-fixed, paraffin-embedded human ovarian carcinoma tissue stained for GAPDH using ab226408 at 1/20 dilution in immunohistochemical analysis. Detection: DAB staining.

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