abcam

Product datasheet

Anti-GAPDH antibody - Loading Control ab37168

★★★★★ 2 Abreviews   390 References   5 Images

Overview

Product name	Anti-GAPDH antibody - Loading Control
Description	Rabbit polyclonal to GAPDH - Loading Control
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human GAPDH aa 60-110 (N terminal). Synthetic peptide, corresponding to 16 N terminal amino acids of Human GAPDH Database link: P04406
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: 7.2 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Purification notes	GAPDH Antibody is affinity chromatography purified via peptide column.
Clonality	Polyclonal
Isotype	IgG

Applications

Application	Abreviews	Notes
WB		Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 36 kDa (predicted molecular weight: 36 kDa).
IHC-P		Use a concentration of 10 µg/ml.
ICC/IF		Use a concentration of 0.1 - 1 µg/ml.

Target

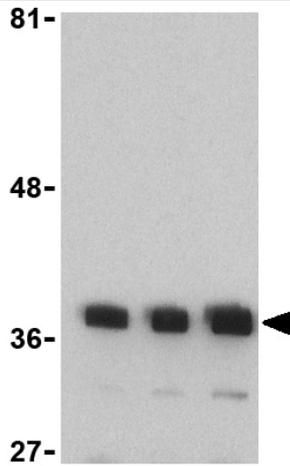|	
Function	Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Participates in nuclear events including transcription, RNA transport, DNA replication and apoptosis. Nuclear functions are probably due 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 - Loading Control (ab37168)

Lane 1 : Anti-GAPDH antibody - Loading Control (ab37168) at 0.125 µg/ml

Lane 2 : Anti-GAPDH antibody - Loading Control (ab37168) at 0.25 µg/ml

Lane 3 : Anti-GAPDH antibody - Loading Control (ab37168) at 0.5 µg/ml
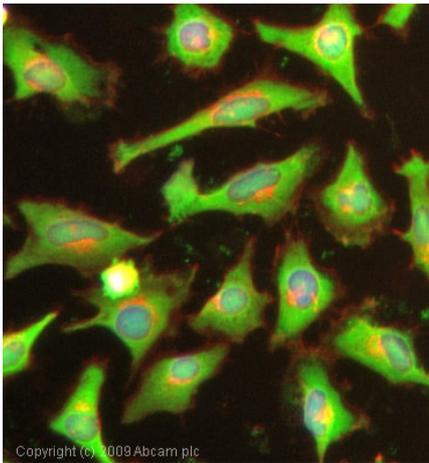
All lanes : HeLa cell lysate with GAPDH peptide

Lysates/proteins at 15 µg per lane.

Secondary
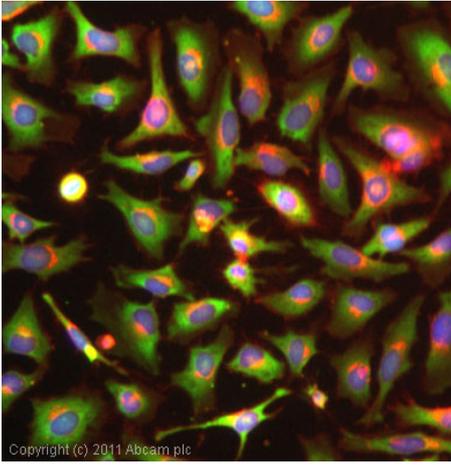**All lanes :** anti-rabbit IgG HRP at 1/10000 dilution

Predicted band size: 36 kDa
Observed band size: 36 kDa

Immunocytochemistry/ Immunofluorescence - Anti-GAPDH antibody - Loading Control (ab37168)

ICC/IF image of ab37168 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab37168, 1mg/ml) overnight at +4øC. The secondary antibody (green) was anti-rabbit Alexa Fluor® 488 (ab150077) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43æM.
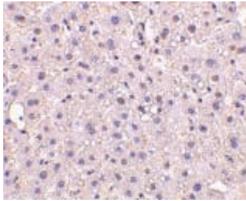
ICC/IF image of ab37168 stained Hela cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab37168, 1µg/ml) overnight at +4°C. The secondary antibody (green) was anti-Rabbit DyLight® 488 pre-adsorbed (ab96899) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunocytochemistry/ Immunofluorescence - Anti-GAPDH antibody - Loading Control (ab37168)

Immunocytochemistry/ Immunofluorescence - Anti-GAPDH antibody - Loading Control (ab37168)

Immunofluorescence of GAPDH in HeLa cells using ab37168 at 10 ug/ml.

ab37168 at 10µg/ml staining GAPDH in human liver tissue by IHC

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GAPDH antibody - Loading Control (ab37168)

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