# abcam

# Product datasheet

# Recombinant Mouse GAPDH protein ab202148

## 1 Image

**Description** 

Product name Recombinant Mouse GAPDH protein

Purity > 95 % SDS-PAGE.

ab202148 was purified using conventional chromatography techniques.

**Expression system** Escherichia coli

Accession P16858

Protein length Full length protein

Animal free No

Nature Recombinant

**Species** Mouse

**Sequence** MGSSHHHHHHSSGLVPRGSHMGSMVKVGVNGFGRIGRL

VTRAAICSGKVE

 ${\tt NVAINDPFIDLNYMVYMFQYDSTHGKFNGTVKAENGKLVING}$ 

**KPITIFQE** 

RDPTNIKWGEAGAEYVVESTGVFTTMEKAGAHLKGGAKR

VIISAPSADAP

MFVMGVNHEKYDNSLKIVSNASCTTNCLAPLAKVIHDNFGI

**VEGLMTTVH** 

AITATQKTVDGPSGKLWRDGRGAAQNIIPASTGAAKAVGK

**VIPELNGKLT** 

GMAFRVPTPNVSVVDLTCRLEKPAKYDDIKKVVKQASEG

**PLKGILGYTED** 

QVVSCDFNSNSHSSTFDAGAGIALNDNFVKLISWYDNEYG

YSNRVVDLMA YMASKE

Predicted molecular weight 38 kDa including tags

Amino acids 1 to 333

Tags His tag N-Terminus

Additional sequence information NP\_032110.

#### **Specifications**

Our Abpromise guarantee covers the use of ab202148 in the following tested applications.

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

1

Applications SDS-PAGE

Mass Spectrometry

Mass spectrometry

**MALDI-TOF** 

Form

Liquid

#### **Preparation and Storage**

#### Stability and Storage

Shipped at  $4^{\circ}$ C. Store at  $+4^{\circ}$ C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituents: 20% Glycerol (glycerin, glycerine), 0.02% DTT, 79% PBS

#### **General Info**

#### **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 (C3P) into 3 phosphate.

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.

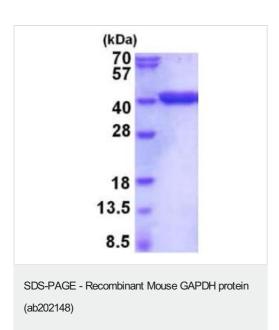
ISGylated.

**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**



15% SDS-PAGE analysis of ab202148 (3 µg).

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