Datasheet for ABIN7126058

GAPDH Protein (full length) (rho-1D4 tag)

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Overview

Quantity:	0.5 mg
Target:	GAPDH
Protein Characteristics:	full length
Origin:	CHO cells
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GAPDH protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys), Functional Studies (Func)

Product Details

Sequence:	MVKVGVNGFG RIGRLVTRAA FTSGKVEVVA INDPFIDLNY MVYMFQYDST HGKFKGTVKA ENGKLVINGK AITIFQERDP ANIKWGDAGA EYVVESTGVF TTMEKAGAHL KGGAKRVIIS APSADAPMFV MGVNQDKYDN SLKIVSNASC TTNCLAPLAK VIHDNFGIVE GLMTTVHAIT ATQKTVDGPS GKLWRDGRGA AQNIIPASTG AAKAVGKVIP ELNGKLTGMA FRVPTPNVSV VDLTCRLEKP AKYEDIKKVV KQASEGPLKG ILGYTEDQVV SCDFNSDSHS STFDAGAGIA LNDNFVKLIS WYDNEFGYSN RVVDLMAYMA SKE **Sequence without tag. The location of the tag depends on protein. You may also submit your preference when ordering.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • CHO Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) (EC 1.2.1.12) (Peptidyl-cysteine S-nitrosylase GAPDH) Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

	• State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a custom-made protein and will be made for the first time for your order. This protein will be produced on the basis of on a Custom Service Project. We will make sure that every step in the production is successful from the design of the expression plasmid to the expression and purification of the final protein. Our experts in the lab will ensure that you receive a correctly folded protein. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Three step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot. 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot. 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxins have not been removed. Please contact us if you require an endotoxin-free version of this product.
Grade:	Crystallography grade
Biological Activity Comment:	Protein has not been tested for activity yet.

Target Details

Target:	GAPDH
Abstract:	GAPDH Products
Background:	Has both glyceraldehyde-3-phosphate dehydrogenase and nitrosylase activities, thereby playing a role in glycolysis and nuclear functions, respectively. Glyceraldehyde-3-phosphate dehydrogenase is a key enzyme in glycolysis that catalyzes the first step of the pathway by

Target Details

	converting D-glyceraldehyde 3-phosphate (G3P) into 3-phospho-D-glyceroyl phosphate (By similarity). Modulates the organization and assembly of the cytoskeleton. 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. 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. 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 (By similarity). 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). {ECO:0000250|UniProtKB:P04406, ECO:0000250|UniProtKB:P04797}.
UniProt:	P17244

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	150 mM NaCL, 20 mM NaH2PO4 pH 7.4, 10 % glycerol. Note: Isoelectric point of protein taken into account regarding pH .
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)