

Datasheet for ABIN3092985

HSP70 1A Protein (AA 2-641) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	HSP70 1A (HSPA1A)
Protein Characteristics:	AA 2-641
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HSP70 1A protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	AKAAAGIDL GTTYSCVGVF QHGKVEIAN DQGNRTTPSY VAFTDTERLI GDAAKNQVAL NPQNTVFDK RLIGRKFGDP VVQSDMKHWP FQVINDGDKP KVQVSYKGET KAFYPEEISS MVLTKMKEIA EAYLGYPTN AVITVPAYFN DSQRQATKDA GVIAGLNVLR IINEPTAAAI AYGLDRTGKG ERNVLIFDLG GGTFDVSILT IDDGIFEVKA TAGDTHLGGE DFDNRLVNHF VEEFKRKHKK DISQNKRAVR RLRTACERAK RTLSSTQAS LEIDSLFEGI DFYTSITRAR FEELCSDLFR STLEPVEKAL RDAKLDKAQI HDLVLVGGST RIPKVQKLLQ DFFNGRDLNK SINPDEAVAY GAAVQAAILM GDKSENVQDL LLLDVAPLSL GLETAGGVMT ALIKRNSTIP TKQTQIFTTY SDNQPGVLIQ VYGERAMTK DNNLLGRFEL SGIPPAPRGV PQIEVTFDID ANGILNVTAT DKSTGKANKI TITNDKGRLS KEEIERMVQE AEKYKAEDEV QRERVSAKNA LESYAFNMKS AVEDEGLKGK ISEADKKKVL DKCQEVISWL DANTLAEKDE FEHKRKELEQ VCNPIISGLY QGAGGPGPGG FGAQGPKGGS GSGPTIEEVD
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Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a

special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human HSPA1A Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. 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:

Protein is endotoxin free.

Grade:

Crystallography grade

Target Details

Target:	HSP70 1A (HSPA1A)
Alternative Name:	HSPA1A (HSPA1A Products)
Background:	In cooperation with other chaperones, Hsp70s stabilize preexistent proteins against aggregation and mediate the folding of newly translated polypeptides in the cytosol as well as within organelles. These chaperones participate in all these processes through their ability to recognize nonnative conformations of other proteins. They bind extended peptide segments with a net hydrophobic character exposed by polypeptides during translation and membrane translocation, or following stress-induced damage. In case of rotavirus A infection, serves as a post-attachment receptor for the virus to facilitate entry into the cell. Essential for STUB1-mediated ubiquitination and degradation of FOXP3 in regulatory T-cells (Treg) during inflammation (PubMed:23973223). {ECO:0000269 PubMed:16537599, ECO:0000269 PubMed:22528486, ECO:0000269 PubMed:23973223}.
Molecular Weight:	70.9 kDa Including tag.
UniProt:	P0DMV8
Pathways:	Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C

Handling

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process