

Datasheet for ABIN3092986

## HSPA6 Protein (AA 1-643) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	HSPA6
Protein Characteristics:	AA 1-643
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HSPA6 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MQAPRELAVG IDLGTTYSCV GVFFQQGRVEI LANDQGNRTT PSYVAFTDTE RLVGDAAKSQ</p> <p>AALNPHNTVF DAKRLIGRKF ADTTVQSDMK HWPFRVVSEG GKPKVRVCYR GEDKTFYPEE</p> <p>ISSMVLKMK ETAEAYLGQP VKHAVITVPA YFNSQRQAT KDAGAIAGLN VLRIINEPTA</p> <p>AAIAYGLDRR GAGERNVLIF DLGGGTFDVS VLSIDAGVFE VKATAGDTHL GGEDFDNRLV</p> <p>NHFMEEFRRK HGKDLSGNKR ALRRLRTACE RAKRTLSSST QATLEIDSLF EGVDFYTSIT</p> <p>RARFEELCSD LFRSTLEPVE KALRDAKLDK AQIHDVVLVG GSTRIKVVQK LLQDFFNGKE</p> <p>LNKSINPDEA VAYGAAVQAA VLMGDKCEKV QDLLLLDVAP LSLGLETAGG VMTTLIQRNA</p> <p>TIPTKQTQTF TTYSDNQPGV FIQVYEGERA MTKDNNLLGR FELSGIPPAP RGVPQIEVTF</p> <p>DIDANGILSV TATDRSTGKA NKITITNDKG RLSKEEVERM VHEAEQYKAE DEAQRDRVAA</p> <p>KNSLEAHVFH VKGSLQEESL RDKIPEEDRR KMQDKCREVL AWLEHNQLAE KEEYEHQKRE</p> <p>LEQICRPIFS RLYGGPGVPG GSSCGTQARQ GDPSTGPIIE EVD</p>

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 try to ensure that you receive soluble 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.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

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### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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### Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

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## Product Details

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Grade: custom-made

## Target Details

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Target: HSPA6

Alternative Name: HSPA6 ([HSPA6 Products](#))

Background: Heat shock 70 kDa protein 6 (Heat shock 70 kDa protein B'),FUNCTION: Molecular chaperone implicated in a wide variety of cellular processes, including protection of the proteome from stress, folding and transport of newly synthesized polypeptides, activation of proteolysis of misfolded proteins and the formation and dissociation of protein complexes. Plays a pivotal role in the protein quality control system, ensuring the correct folding of proteins, the re-folding of misfolded proteins and controlling the targeting of proteins for subsequent degradation. This is achieved through cycles of ATP binding, ATP hydrolysis and ADP release, mediated by co-chaperones. The affinity for polypeptides is regulated by its nucleotide bound state. In the ATP-bound form, it has a low affinity for substrate proteins. However, upon hydrolysis of the ATP to ADP, it undergoes a conformational change that increases its affinity for substrate proteins. It goes through repeated cycles of ATP hydrolysis and nucleotide exchange, which permits cycles of substrate binding and release (PubMed:26865365). {ECO:0000303|PubMed:26865365}.

Molecular Weight: 71.0 kDa

UniProt: [P17066](#)

## Application Details

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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.

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Application Details

	needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months