

# Datasheet for ABIN7554117 **HSPA2 Protein (AA 1-639) (His tag)**



# Overview

Quantity:	1 mg
Target:	HSPA2
Protein Characteristics:	AA 1-639
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HSPA2 protein is labelled with His tag.

## **Product Details**

Product Details	
Purpose:	Custom-made recombinant HSPA2 Protein expressed in mammalian cells.
Sequence:	MSARGPAIGI DLGTTYSCVG VFQHGKVEII ANDQGNRTTP SYVAFTDTER LIGDAAKNQV
	AMNPTNTIFD AKRLIGRKFE DATVQSDMKH WPFRVVSEGG KPKVQVEYKG ETKTFFPEEI
	SSMVLTKMKE IAEAYLGGKV HSAVITVPAY FNDSQRQATK DAGTITGLNV LRIINEPTAA
	AIAYGLDKKG CAGGEKNVLI FDLGGGTFDV SILTIEDGIF EVKSTAGDTH LGGEDFDNRM
	VSHLAEEFKR KHKKDIGPNK RAVRRLRTAC ERAKRTLSSS TQASIEIDSL YEGVDFYTSI
	TRARFEELNA DLFRGTLEPV EKALRDAKLD KGQIQEIVLV GGSTRIPKIQ KLLQDFFNGK
	ELNKSINPDE AVAYGAAVQA AILIGDKSEN VQDLLLLDVT PLSLGIETAG GVMTPLIKRN
	TTIPTKQTQT FTTYSDNQSS VLVQVYEGER AMTKDNNLLG KFDLTGIPPA PRGVPQIEVT
	FDIDANGILN VTAADKSTGK ENKITITNDK GRLSKDDIDR MVQEAERYKS EDEANRDRVA
	AKNALESYTY NIKQTVEDEK LRGKISEQDK NKILDKCQEV INWLDRNQMA EKDEYEHKQK
	ELERVCNPII SKLYQGGPGG GSGGGGSGAS GGPTIEEVD Sequence without tag. The proposed
	Purification-Tag is based on experiences with the expression system, a different complexit

	of the protein could make another tag necessary. In case you have a special request, please
	contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:
	<ul> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> <li>Protein expressed in mammalian cells and purified in one-step affinity chromatography</li> <li>The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>
	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.
	If you are not interested in a full length protein, please contact us for individual protein
	fragments.
	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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC
Grade:	custom-made
Target Details	
Target:	HSPA2
Alternative Name:	HSPA2 (HSPA2 Products)
Background:	Heat shock-related 70 kDa protein 2 (Heat shock 70 kDa protein 2),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 protein
	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

#### **Target Details**

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). Plays a role in spermatogenesis. In association with SHCBP1L may participate in the maintenance of spindle integrity during meiosis in male germ cells (By similarity). {ECO:0000250|UniProtKB:P17156, ECO:0000303|PubMed:26865365}.

Molecular Weight:

70.0 kDa

UniProt:

P54652

# **Application Details**

Application Notes:

We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions:

For Research Use only

12 months

## Handling

Expiry Date:

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.