

Product datasheet for PH300523

HSPA2 (NM_021979) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	HSPA2 MS Standard C13 and N15-labeled recombinant protein (NP_068814)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200523
Predicted MW:	70 kDa
Protein Sequence:	>RC200523 protein sequence Red=Cloning site Green=Tags(s)

MSARGPAIGIDLGTTYSCVGVFQHGKVEIANDQGNRTTPSYVAFDTERLIGDAAKNQVAMNPTNTIFD
AKRLIGRKFEDATVQSDMKHWPFRVSEGGKPKVQVEYKGETKTFPPEEISSMVLTKMKEIAEAYLGKVV
HSAVITVPAYFNDSQRQATKDAGTITGLNVLRIINEPTAAAIAAYGLDKKGCAGGEKNVLIFFDLGGGTFDV
SILTIEDGIFEVKSTAGDTHLGGEDFDNRMVSHLAEEFKRKHKKDIGPNKRAVRRRLTACERAKRTLSSS
TQASIEIDSLYEGVDFYTSITRARFEELNADLFRGTLEPVEKALRDAKLDKGQIQEIVLVGGSTRIPKIQ
KLLQDFNGKELNKSINPDEAVAYGAAVQAAIIGDKSENVQDLLLDVTPLSLGIETAGGVMTPLIKRN
TTIPTKQTQFTTYSNQS SVLVQVYEGERAMTKDNNLLGKFDL TGIPPAPRGVPIEVTFIDANGILN
VTAADKSTGKENKITITNDKGRLLSKDDIDRMVQEAERYKSEDEANRDRVAAKNALESYTYNIKQTVDEK
LRGKISEQDKNKILDKCQEVINWLDNRNQMAEKDEYEHKQKELERVCNPIISKLYQGPGGGSGGGSGAS
GGPTIEEVD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_068814
RefSeq Size:	2802



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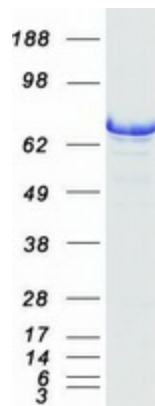
RefSeq ORF:	1917
Synonyms:	HSP70-2; HSP70-3
Locus ID:	3306
UniProt ID:	P54652 , A0A024R6B5
Cytogenetics:	14q23.3

Summary: 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). 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).[UniProtKB/Swiss-Prot Function]

Protein Families: Stem cell - Pluripotency

Protein Pathways: Antigen processing and presentation, Endocytosis, MAPK signaling pathway, Spliceosome

Product images:



Coomassie blue staining of purified HSPA2 protein (Cat# [TP300523]). The protein was produced from HEK293T cells transfected with HSPA2 cDNA clone (Cat# [RC200523]) using MegaTran 2.0 (Cat# [TT210002]).