

Active Recombinant Full Length Human HSPA1A Protein, C-Flag-tagged

Cat. No. HSPA1A-116HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human HSPA1A Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjunction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster with two closely related genes which encode similar proteins.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	Higher specific activity than E. coli derived HSP70: Origene human recombinant Hsp70 (TP300270) was compared side-by-side with E. coli derived Hsp70 in a firefly luciferase refolding assay. Percentage of refolding is relative to an identical load of non-denatured luciferase in the reaction. The human cell produced Hsp70 is approximately 30% more active than the bacterial produced Hsp70.
Molecular Mass	69.9 kDa

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AA Sequence

MAKAAAIGIDLGTTYSCVGVFQHGKVEIANDQGNRTTPSYAFTDTERLIGDAAKNQ
 VALNPQNTVFDA KRLIGRKFGDPVVQSDMKHWPQVINDGDKPKVQVSYKGETKA
 FYPEEISSMVLTKMKEIAEAYLGYPT NAVITVPAYFNDSQRQATKDAGVIAGLNVLR
 IINEPTAAAIAYGLDRTGKGERNVLIFDLGGGTFDVSIL TIDDGIFEVKATAGDTHLGG
 EDFDNRLVNHFVEEFKRKHKKDISQNKRAVRLRTACERAKRTLSSSTQA SLEIDSL
 FEGIDFYTSITRARFEELCSDLFRSTLEPVEKALRDAKLDKAQIHDLVLVGGSTRIPKV
 QKLL QDFFNGRDLNKSINPDEAVAYGA AVQAAILMGDKSENVQDLLLLDVAPLSLGL
 ETAGGVMTALIKRNSTI PTKQTQIFTTYSNQPGLVIQVYEGERAMTKDNNLLGRFE
 LSGIPPAPRGVPQIEVTFDIDANGILNVTA TDKSTGKANKITITNDKGRLSKEEIERMV
 QEAEKYKADEVQRRERSAKNALESYAFNMKSAVEDEGLKG KISEADKKKVLDKC
 QEVISWLDANTLAEKDEFEHKRKELEQVCNPIISGLYQGAGGPGPGGFGA QGPKGG

 SGSGPTIEEVDTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity

> 80% as determined by SDS-PAGE and Coomassie blue staining.

Stability

Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

Storage

Store at -80 centigrade.

Concentration

>50 ug/mL as determined by microplate BCA method.

Preparation

Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

Protein Pathways

Antigen processing and presentation, Endocytosis, MAPK signaling pathway, Prion diseases, Spliceosome

Full Length

Full L.

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GENE INFORMATION

Gene Name	HSPA1A heat shock protein family A (Hsp70) member 1A [Homo sapiens (human)]
Official Symbol	HSPA1A
Synonyms	HSP70; HSP72; HSPA1; HSP70I; HSP70-1; HSP70-2; HSP70.1; HSP70.2; HSP70-1A; HEL-S-103
Gene ID	3303
mRNA Refseq	NM_005345.6
Protein Refseq	NP_005336.3
MIM	140550
UniProt ID	P0DMV8

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Coomassie blue staining of purified HSPA1A protein.

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