

HSP70/HSP72

(human),

(recombinant)

A molecular chaperone that assists in the folding of emerging polypeptides and the refolding of denatured proteins.

The Hsp70 family of heat shock proteins contains multiple homologs ranging in size from 66-78 kDa, and are the eukaryotic equivalents of the bacterial DnaK. The most studied Hsp70 members include the cytosolic stress-induced Hsp70 (Hsp72), the constitutive cytosolic Hsc70 (Hsp73), and the ER-localized BiP (Grp78). Hsp70 family members contain highly conserved N-terminal ATP-ase and C-terminal protein binding domains. Binding of peptide to Hsp70 is assisted by Hsp40, and stimulates the inherent ATPase activity of Hsp70, facilitating ATP hydrolysis and enhanced peptide binding. Hsp70 nucleotide exchange and substrate binding coordinates the folding of newly synthesized proteins, the re-folding of misfolded or denatured proteins, coordinates trafficking of proteins across cellular membranes, inhibits protein aggregation, and targets the degradation of proteins via the proteasomal pathway.

Citations: 24

[View Online »](#)

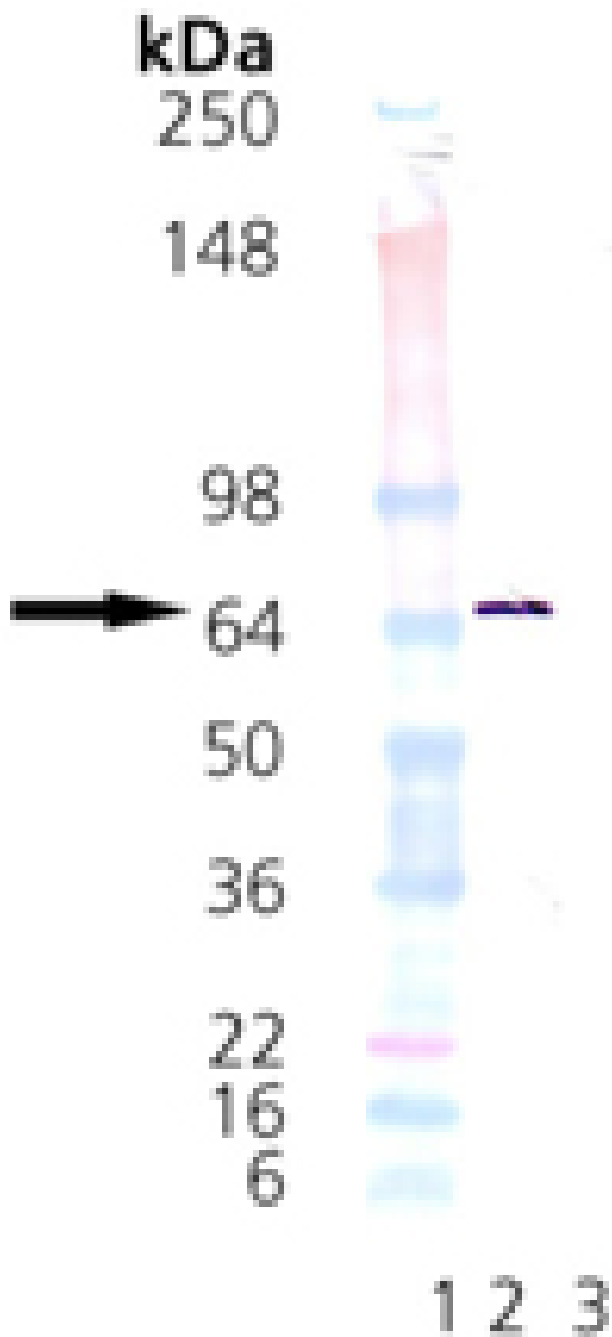
Ordering Information

[Order Online »](#)

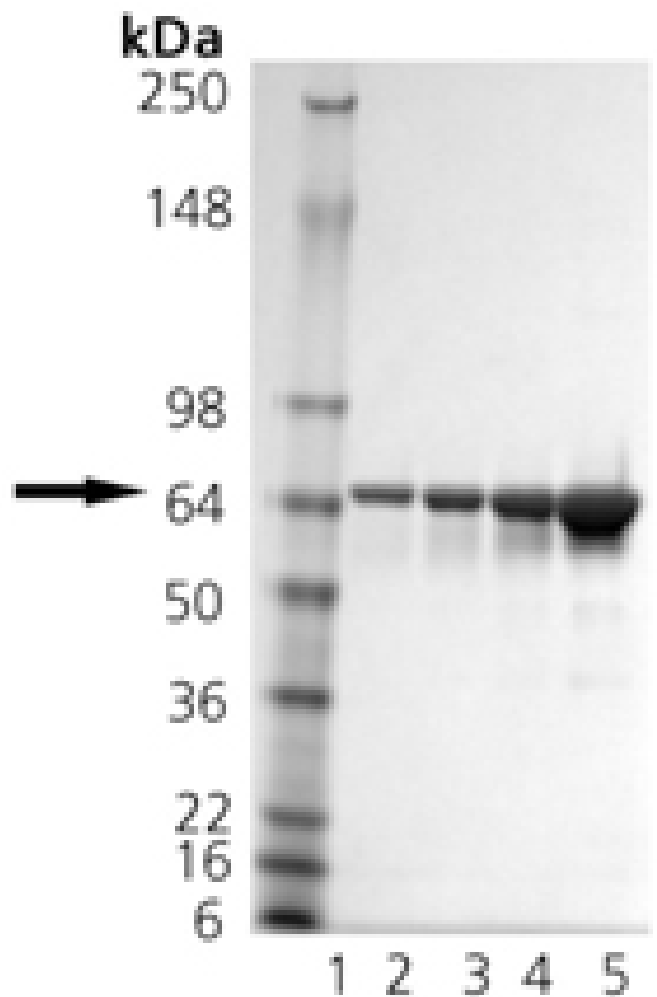
ADI-NSP-555-D	50µg
ADI-NSP-555-F	200µg

Manuals, SDS & CofA

[View Online »](#)



Western Blot analysis of HSP70/HSP72 (human), (recombinant): Lane 1: MWM, Lane 2: 50 ng HSP70; Lane 3: 50 ng DnaK (Prod. No. ADI-SPP-630) , probed with anti-HSP70 (Prod. No. ADI-SPA-810).



SDS-PAGE analysis: Lane 1: MW marker; Lane 2: 0.5 μ g; Lane 3: 1 μ g; Lane 4: 2 μ g; Lane 5: 5 μ g Hsp70

Handling & Storage

Long Term Storage -80°C

Shipping Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name Heat shock protein 70, HspA1A, HspA1B

Application Notes ATPase activity assay (positive). Western blot control.

Endotoxin Content >500EU/mg purified protein (LAL test)

Formulation Liquid. In Dulbecco's PBS.

GenBank ID M11717

Gene/Protein Identifier NP_005336.3 (RefSeq), NM_005345 (RefSeq), 3303 (Entrez GeneID), 140550 (OMIM)

MW ~72kDa

Purity ≥95% (SDS-PAGE; Western blot)

Purity Detail Purified by multi-step chromatography.

Source Produced in *E. coli*.

UniProt ID P0DMV8 (HSPA1A), P0DMV9 (HSPA1B)



ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0430
[info-
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
[info-
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
[info-
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France
Phone: +33 472 440 655
[info-
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany
Phone: +49 7621 5500 526
[info-
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
[info-
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)