HSP70/HSP72 (human), (recombinant)

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

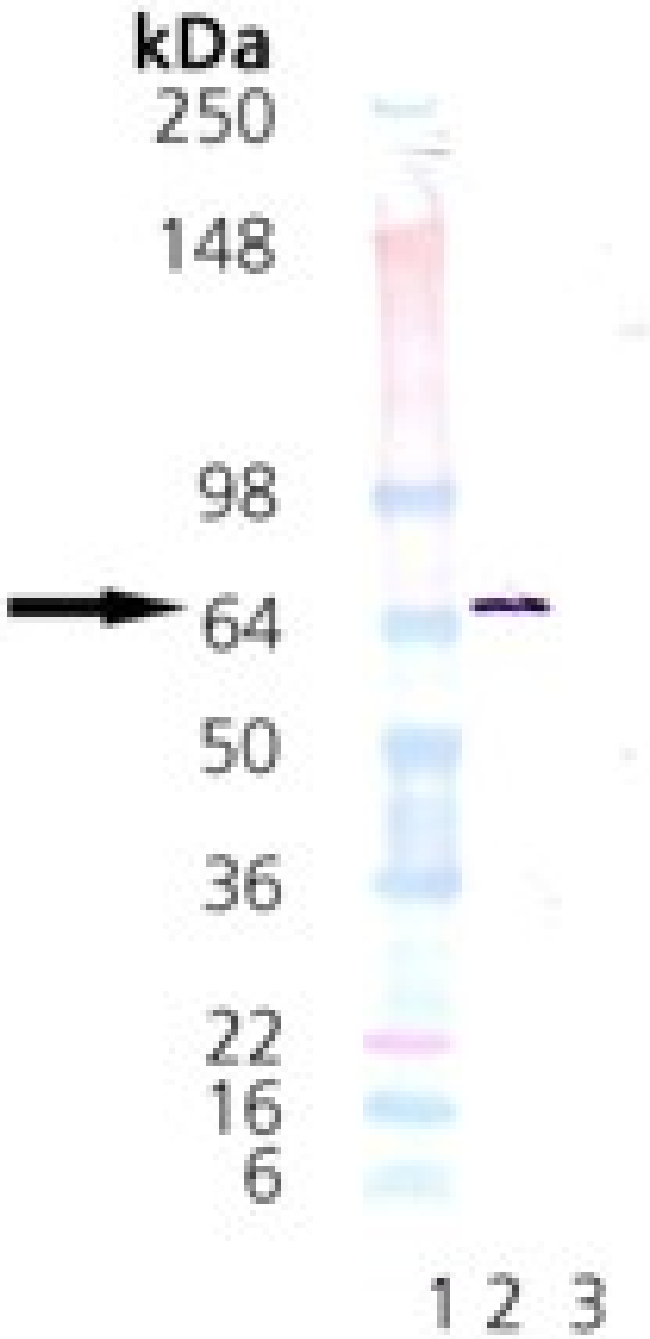
The Hsp70 family of heat shock proteins contains multiple homologs ranging in size from 66-78 kDa, and are the eukaryotic equivalents of the bacterial DnaK. The most studied Hsp70 members include the cytosolic stress-induced Hsp70 (Hsp72), the constitutive cytosolic Hsc70 (Hsp73), and the ER-localized 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 »

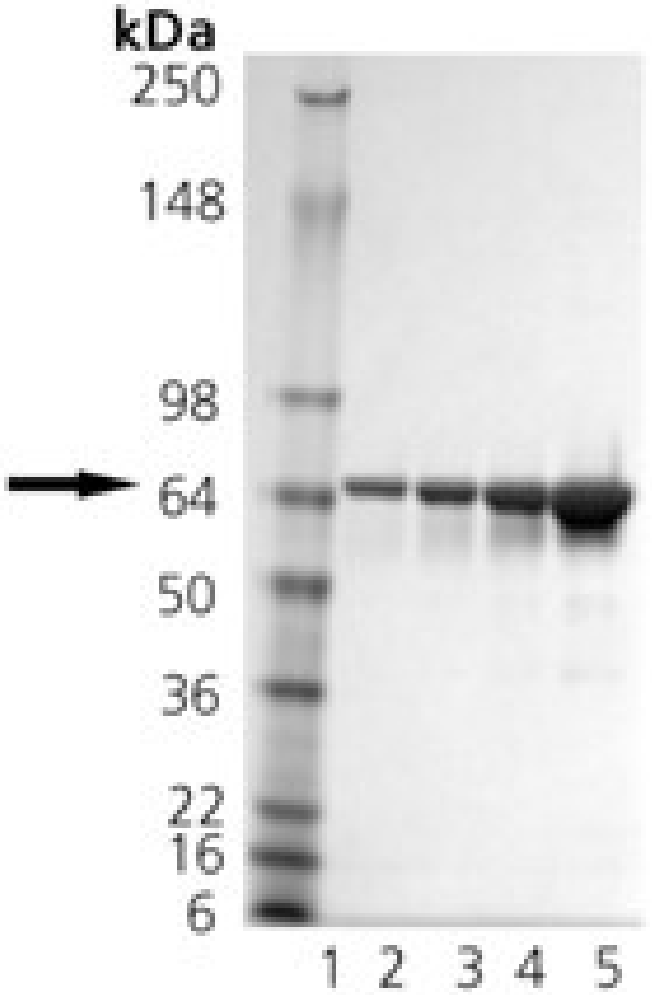
Ordering Information Order Online »

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: 0.5µg; Lane 3: 1µg; Lane 4: 2µg; Lane 5: 5µg 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)

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