

## Product Information

### HSP70, His-tagged, human recombinant, expressed in *Sf9* insect cells

Catalog Number **SRP5190**  
Storage Temperature  $-70^{\circ}\text{C}$

Synonyms: HSPA1A, HSP72, HSPA1, HSPA1B, HSP70-1

#### Product Description

HSP70 is a member of the heat shock protein family and is synthesized by cells of many organisms in response to stress.<sup>1</sup> HSP70 is found mostly, but not exclusively, in the nucleus of unstressed cells. For several hours after a short heat shock, it is strongly concentrated in nucleoli.<sup>2</sup> Nucleoli are transiently damaged by such a heat shock. Their morphology changes, and assembly and export of ribosomes are blocked for several hours. HSP70 helps to stabilize the morphological changes of the nucleoli.

Recombinant, full-length, human HSP70 was expressed by baculovirus in *Sf9* insect cells using an N-terminal His tag. The gene accession number is NM\_005345. Recombinant protein stored in 50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.25 mM DTT, and 25% glycerol.

Molecular mass: ~70 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

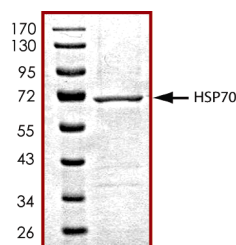
#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

The product ships on dry ice and storage at  $-70^{\circ}\text{C}$  is recommended. After opening, aliquot into smaller quantities and store at  $-70^{\circ}\text{C}$ . Avoid repeated handling and multiple freeze/thaw cycles.

**Figure 1.**  
SDS-PAGE Gel of Typical Lot  
70–95% (densitometry)



#### References

1. Moran, L.A. et al., The major heat-shock protein (hsp70) gene family: related sequences in mouse, *Drosophila*, and yeast. *Can. J. Biochem Cell Biol.*, **61**, 488-499 (1983).
2. Pelham, H.R. et al., Hsp70 accelerates the recovery of nucleolar morphology after heat shock. *EMBO J.*, **3**, 3095-3100 (1984).

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