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Recombinant Human HSP70 Protein

Catalog No.: RP02123 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	3303	P0DMV8

Tags
N-6His

Synonyms
HSPA1A; HSP72; HSPA1; HSX70;Heat shock 70 kDa protein 1

Product Information

Source	Purification
HEK293 cells	≥ 90 % as determined by SDS-PAGE.

Calculated MW	Observed MW
71.4 kDa	70-80 kDa

Endotoxin
< 0.01 EU/μg of the protein by LAL method.

Formulation
Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). 5 % trehalose, 0.01% Tween80 are added as protectants before lyophilization.Please contact us for any concerns or special requirements.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

☎ | 400-999-6126

Background

HSPA1A is a member of the Hsp70 protein family. The 70 kilodalton heat shock proteins (Hsp70s) are a family of ubiquitously expressed heat shock proteins. HSP are abundant and conserved proteins present in all cells. Upon temperature shock or other stress stimuli, HSP is synthesized intracellularly, which may protect cells from protein denaturation or death. Extracellularly, HSP can serve a cytokine function to initiate both innate and adaptive immunity through activation of APC. HSP serves also a chaperone function and facilitates the presentation of antigen peptide to T cells. Molecular chaperones of the Hsp70 family have diverse functions in cells. They assist the folding of newly synthesized and stress-denatured proteins, as well as the import of proteins into organelles, and the dissociation of aggregated proteins. The well-conserved Hsp70 chaperones are ATP dependent: binding and hydrolysis of ATP regulate their interactions with unfolded polypeptide substrates, and ATPase cycling is necessary for their function. All cellular functions of Hsp70 chaperones use the same mechanism of ATP-driven polypeptide binding and release.

Basic Information

Description
Recombinant Human HSP70 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala2-Asp641) of Human HSP70 (Accession #NP_005336.3) fused with His tag at the N-Terminus.

Bio-Activity

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

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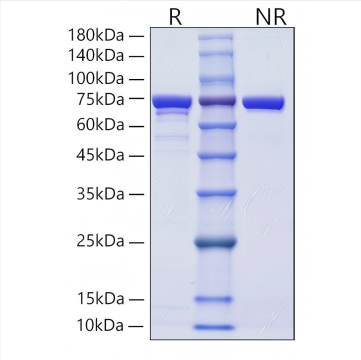
* 为了您的安全和健康，请穿实验服并戴一次性手套操作。

Validation Data



Recombinant Human HSP70 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.