Human HSPA8 / HSC70 Protein (His Tag)

Catalog Number: **11329-H07E**

General Information

Gene Name Synonym:

HEL-33; HEL-S-72p; HSC54; HSC70; HSC71; HSP71; HSP73; HSPA10; LAP-1; LAP1; NIP71

Protein Construction:

A DNA sequence encoding the human HSPA8 (P11142-1) (Met 1-Asp 646) was expressed, with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human HSPA8 consisting of 657 amino acids and has a calculated molecular mass of 72.4 kDa. The apparent molecular mass of the protein is approximately 65 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 10% glycerol, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

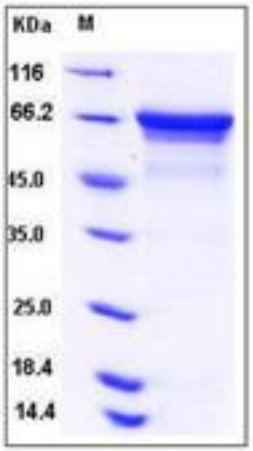
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

HSPA8, also known as HSC70, is a member of the heat shock protein family due to homology with other heat shock proteins. The heat shock protein 70 family is comprised by both heat-inducible and constitutively expressed members. The latter are called heat-shock cognate proteins. HSPA8 belongs to the heat-shock cognate subgroup. Members of the human heat-shock protein multigene family have several highly conserved proteins with structural and functional properties in common, but vary in the extent of their inducibility in response to metabolic stress. HSPA8 is constitutively expressed and performs functions related to normal cellular processes. This protein binds to nascent polypeptides to facilitate correct protein folding. It also functions as an ATPase in the disassembly of clathrin-coated vesicles during transport of membrane components through the cell. Two alternatively spliced variants have been characterized to date. HSPA8 acts as a repressor of transcriptional activation. It inhibits the transcriptional coactivator activity of CITED1 on Smad-mediated transcription. Isoform 2 may function as an endogenous inhibitory regulator of HSC70 by competing the co-chaperones. It also is a ATPase that works with auxilin to remove clathrin coated vesicles. In neurons, synaptojanin is also an important protein involved in vesicle uncoating.

References

1.Santacruz H, *et al.* (1997) Molecular characterization of a heat shock cognate cDNA of zebrafish, hsc70, and developmental expression of the corresponding transcripts. Dev Genet. 21:223-33. 2.Harhay G P, *et al.* (2005) Characterization of 954 bovine full-CDS cDNA sequences. BMC Genomics. 6: 166. 3.Goldfarb S, *et al.* (2006) Differential effects of Hsc70 and Hsp70 on the intracellular trafficking and functional expression of epithelial sodium channels. Proc Natl Acad Sci. 103(15):5817-22.