

Recombinant Human HSPA5 Protein, His-tagged

Cat. No. HSPA5-8943H Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant human HSPA5 protein (19-654aa), fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Species

Human

Source

E.coli

ProteinLength

19-654

Description

The protein encoded by this gene is a member of the heat shock protein 70 (HSP70) family. This protein localizes to the lumen of the endoplasmic reticulum (ER) where it operates as a typical HSP70 chaperone involved in the folding and assembly of proteins in the ER and is a master regulator of ER homeostasis. During cellular stress, as during viral infection or tumorigenesis, this protein interacts with the transmembrane stress sensor proteins PERK (protein kinase R-like endoplasmic reticulum kinase), IRE1 (inositol-requiring kinase 1), and ATF6 (activating transcription factor 6) where it acts as a repressor of the unfolded protein response (UPR) and also plays a role in cellular apoptosis and senescence. Elevated expression and atypical translocation of this protein to the cell surface has been reported in viral infections and some types of cancer cells. At the cell surface this protein may facilitate viral attachment and entry to host cells. This gene is a therapeutic target for the treatment of coronavirus diseases and chemoresistant cancers.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Form	Liquid
Molecular Mass	72.9 kDa (659aa)
AA Sequence	EEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIANDQGNRITPSYVAFTPEGERLI GDAAKNQLTSNPENTVFDARLIGRTWNDPSVQQDIKFLPFKVVEKTKPYIQVDIG GGQTKTFAPEEISAMVLTKMKETAAYLGKKVTHAVVTPAYFNDAQRQATKDAGTI AGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDLGGGTFDVSLLTIDNGVFEVVATNG DTHLGGEDFDQRVMEHFIKLYKKKTGKDVRKDNRAVQKLRREVEKAKRALSSQHQ ARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVG GSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYGAAGVQAGVLSGDQDTGDLVLLDVC PLTLGIETVGGVMTKLIPRNTVVP TKKSQIFSTASDNQPTVTIKVYEGERPLTKDNHLL GTFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKITITNDQNRLTPEEIE RMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGLSSEDKETMEK AVEEKIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/mL (determined by Bradford assay)
Storage Buffer	20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1mM DTT
GENE INFORMATION	
Gene Name	HSPA5 heat shock protein family A (Hsp70) member 5 [Homo sapiens (human)]

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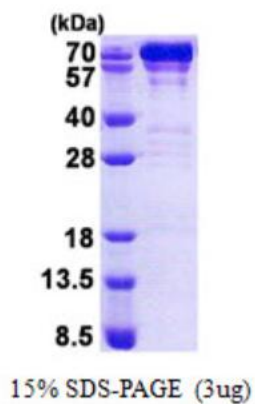
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Official Symbol	HSPA5
Synonyms	HSPA5; heat shock protein family A (Hsp70) member 5; BIP; GRP78; HEL-S-89n; endoplasmic reticulum chaperone BiP; 78 kDa glucose-regulated protein; HSP70 family protein 5; binding-immunoglobulin protein; endoplasmic reticulum luminal Ca(2+)-binding protein grp78; epididymis secretory sperm binding protein Li 89n; glucose-regulated protein, 78kDa; heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa); heat shock protein 70 family protein 5; heat shock protein family A member 5; immunoglobulin heavy chain-binding protein; EC 3.6.4.10
Gene ID	3309
mRNA Refseq	NM_005347
Protein Refseq	NP_005338
MIM	138120
UniProt ID	P11021

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