

Recombinant Human HSPA5 Protein, His-tagged

Cat. No. HSPA5-8942H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human BIP protein (20-650aa), fused to His-tag at C-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	20-650
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.

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Form	Liquid
Molecular Mass	71 kDa (640aa)
AA Sequence	MEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERLI GDAAKNQLTSNPENTVFDAKRLIGRTWNDPSVQQDIKFLPFKVVEKTKPYIQVDIG GGQTKTFAPEEISAMVLTKMKETAAYLGKKVTHAVVTPAYFNDAQRQATKDAGTI AGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDLGGGTFDVSLLTIDNGVFEVVATNG DTHLGGEDFDQVRMEHFIKLYKKKTGKDVRKDNRAVQKLRRVEKAKRALSSQHQ ARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVG GSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYGA AVQAGVLSGDQDTGDLVLLDVC PLTLGIETVGGVMTKLIPRNTVVPTKKSQIFSTASDNQPTVTIKVYEGERPLTKDNHLL GTFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKITITNDQNRLTPEEIE RMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGLSSEDKETMEK AVEEKIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAELEHH HHHH
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 10% glycerol

GENE INFORMATION

Gene Name HSPA5 heat shock protein family A (Hsp70) member 5 [Homo sapiens (human)]

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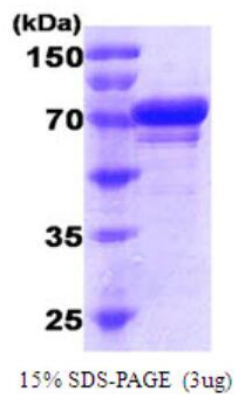
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Official Symbol	HSPA5
Synonyms	HSPA5; heat shock protein family A (Hsp70) member 5; BIP; GRP78; HEL-S-89n; endoplasmic reticulum chaperone BiP; 78 kDa glucose-regulated protein; HSP70 family protein 5; binding-immunoglobulin protein; endoplasmic reticulum 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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