Recombinant Human HSPA5 Protein, His tagged

Cat. No. HSPA5-4710H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HSPA5 Protein (20-650 aa) with His tag was expressed in insect cells.
Species	Human
Source	Insect Cells
ProteinLength	20-650 aa
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 tumorogenesis, 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.

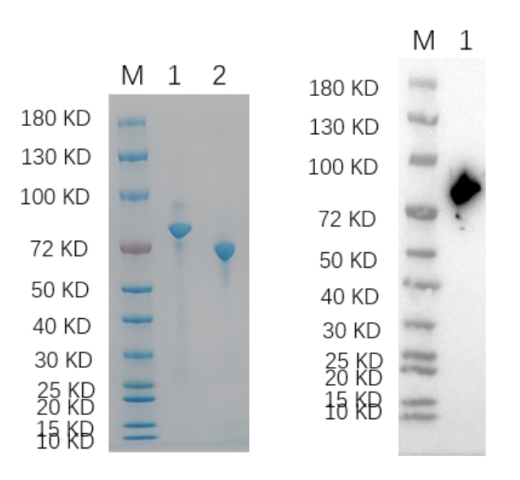
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Molecular Mass	71 kDa
AASequence	MEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERLI GDAAKNQLTSNPENTVFDAKRLIGRTWNDPSVQQDIKFLPFKVVEKKTKPYIQVDIG GGQTKTFAPEEISAMVLTKMKETAEAYLGKKVTHAVVTVPAYFNDAQRQATKDAGTI AGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDLGGGTFDVSLLTIDNGVFEVVATNG DTHLGGEDFDQRVMEHFIKLYKKKTGKDVRKDNRAVQKLRREVEKAKRALSSQHQ ARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLEDSDLKKSDIDEIVLVG GSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDQDTGDLVLLDVC PLTLGIETVGGVMTKLIPRNTVVPTKKSQIFSTASDNQPTVTIKVYEGERPLTKDNHLL GTFDLTGIPPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKITITNDQNRLTPEEIE RMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGKLSSEDKETMEK AVEEKIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAELEHH HHHH
Endotoxin	< 1 EU/μg by LAL
Purity	> 90% by SDS-PAGE
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Sterile 20mM Tris, pH8.0, 10% Glycerol, 200mM NaCl, 2mM DTT
Concentration	1 mg/mL by Bradford

GENE INFORMATION

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

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Synonyms	HSPA5; heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa); GRP78, heat shock 70kD protein 5 (glucose regulated protein, 78kD); 78 kDa glucose-regulated protein; BiP; immunoglobulin heavy chain-binding protein; endoplasmic reticulum lumenal Ca(2+)-binding protein grp78; BIP; MIF2; GRP78; FLJ26106;
Gene ID	3309
mRNA Refseq	NM_005347
Protein Refseq	NP_005338
MIM	138120
UniProt ID	P11021
SDS-PAGE and WB	 Reducing 4%-20% SDS-PAGE (CBB stained) and WB (Anti-His Mouse Monoclonal Antibody) analysis profiles of purified HSPA5. 1. HSPA5: 1 μg 2. BSA: 1 μg

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