

Recombinant Human HSPA5 Protein (Glu19-Leu654), C-His-tagged

Cat. No. HSPA5-12H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of Human heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) (HSPA5), with C-terminal His tag, secretory expressed in HEK293 cells.
Species	Human
Source	HEK293
ProteinLength	Glu19-Leu654
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

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	cancers.
Molecular Mass	71.6 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Applications	Cell culture: For culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	PBS, pH7.4, 10% glycerol.

GENE INFORMATION

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

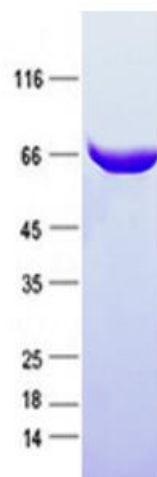
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Gene ID	3309
mRNA Refseq	NM_005347
Protein Refseq	NP_005338
MIM	138120
UniProt ID	P11021

**Quality Control
Testing**



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