

Product datasheet for **TP701043**

GRP78 (HSPA5) (NM_005347) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	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, 50ug
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	A DNA sequence from TrueORF clone, RC205859, encoding the region Glu19-Leu654 of HSPA5
Tag:	C-His
Predicted MW:	71.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	PBS, pH 7.4, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_005338
Locus ID:	3309
UniProt ID:	P11021
RefSeq Size:	3973
Cytogenetics:	9q33.3
RefSeq ORF:	1962
Synonyms:	BIP; GRP78; HEL-S-89n



[View online »](#)

Summary:

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. [provided by RefSeq, Jul 2020]

Protein Families:

Druggable Genome

Protein Pathways:

Antigen processing and presentation, Prion diseases

Product images: