

## Product datasheet for PH305859

### GRP78 (HSPA5) (NM\_005347) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	HSPA5 MS Standard C13 and N15-labeled recombinant protein (NP_005338)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC205859
Predicted MW:	72.3 kDa
Protein Sequence:	>RC205859 protein sequence Red=Cloning site Green=Tags(s)

MKLSLVAAMLLLLSAARAEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTP  
 EGERLIGDAAKNQLTSNPENTVFDKRLIGRTWNDPSVQQDIKFLPFKVVVEKTKPYIQVDIGGGQTKTF  
 APEEISAMVLTKMKETAAYLGKKVTHAVVTPAYFNDAQRQATKDAGTIAGLNMRIINEPTAAAIAYG  
 LDKREGEKNILVFDLGGGTFDVSLLTIDNGVFEVVATNGDTHLGGEDFDQVRMEHF IKLYKKKTGKDVRK  
 DNRAVQKLRRVEKAKRALSSQHARIEIESFYEGEDFSETL TRAKFEELNMDLFRSTMKPVQKVLSDS  
 LKKSIDEIVLVGGSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDQDTGDLVLLDVC  
 PLTLGIETVGGVMTKLIPRNTVVPTKKSQIFSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPPA  
 PRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKITITNDQNRLTPEEIERMVNDAEKFAEEDKCLKERID  
 TRNELESYAYSLKNQIGDKEKLGKLSSEDKETMEKAVEEKIEWLESHQDADIEDFKAKKKELEEIVQPI  
 ISKLYGSAGPPPTGEEDTAEKDEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_005338</a>
RefSeq Size:	3973



[View online »](#)

RefSeq ORF: 1962

Synonyms: BIP; GRP78; HEL-S-89n

Locus ID: 3309

UniProt ID: [P11021](#), [V9HWB4](#)

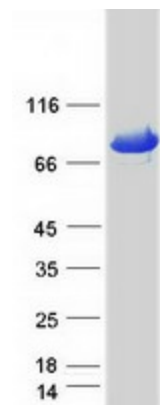
Cytogenetics: 9q33.3

**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:



Coomassie blue staining of purified HSPA5 protein (Cat# [TP305859]). The protein was produced from HEK293T cells transfected with HSPA5 cDNA clone (Cat# [RC205859]) using MegaTran 2.0 (Cat# [TT210002]).