

Product datasheet for TP305859M

GRP78 (HSPA5) (NM_005347) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) (HSPA5), 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC205859 protein sequence Red=Cloning site Green=Tags(s)

MKLSLVAAMLLLLSAARAEEDKKEDVGTWVGIDLGTTYSCVGVFKNGRVEIANDQGNRITPSYVAFTP
EGERLIGDAAKNQLTSNPENTVFDKRLIGRTWNDPSVQQDIKFLPFKVEKTKPYIQVDIGGGQTKTF
APEEISAMVLTKMKETAAYLGKKVTHAVVTVPAYFNDAQRQATKDAGTIAGLNMRIINEPTAAAIAYG
LDKREGEKNILVFDLGGGTFDVSLLTIDNGVFEVATNGDTHLGGEDFDQRMVMEHFILYKTKTGKDVRK
DNRAVQKLRRVEKAKRALSSQHARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLSD
LKKSDIDEIVLVGGSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDQDTGDLVLLDVC
PLTLGIETVGGVMTKLIPRNTVPTKKSQIFSTASDNQPTVTIKVYGERPLTKDNHLLGTFDLTGIPPA
PRGVPQIEVTFEIDVNGILRVTAEDKGTGNKKNITITNDQNRLTPEEIERMVNDAEKFAEEDKCLKKERID
TRNELESYAYSLKNQIGDKEKLGKLSSEDKETMEKAVEEKIEWLESHQDADIEDFKAKKKELEEIVQPI
ISKLYGSAGPPPTGEEDTAEKDEL

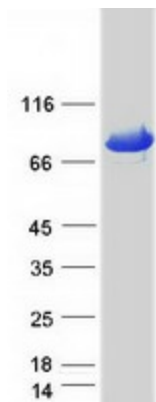
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Predicted MW:	72.2 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	Protein refolding (PMID: 28416388) WB positive control (PMID: 28679661) Ubiquitination substrate (PMID: 29260979)
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.



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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 , V9HWB4
RefSeq Size:	3973
Cytogenetics:	9q33.3
RefSeq ORF:	1962
Synonyms:	BIP; GRP78; HEL-S-89n
Summary:	<p>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]</p>
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]).