

Product datasheet for **SC108086**

GRP78 (HSPA5) (NM_005347) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRP78 (HSPA5) (NM_005347) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRP78
Synonyms:	BIP; GRP78; HEL-S-89n
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene ORF within SC108086 sequence for NM_005347 edited (data generated by NextGen Sequencing)

```

ATGAAGCTCTCCCTGGTGGCCGCGATGCTGCTGCTCAGCGCGGCGGGCCGAGGAG
GAGGACAAGAAGGAGGACGTGGGCACGGTGGTCGGCATCGACCTGGGGACCACCTACTCC
TGCGTCGGCGTGTCAAGAACGGCCGCGTGGAGATCATCGCCAACGATCAGGGCAACCGC
ATCACGCCGTCTATGTCGCCTTCACTCCTGAAGGGGAACGTCGATTGGCGATGCCGCC
AAGAACCAGCTCACCTCCAACCCGAGAACACGGTCTTTGACGCCAAGCGGCTCATCGGC
CGCACGTGGAATGACCCGTCTGTGCAGCAGGACATCAAGTCTTGCCGTTCAAGGTGGTT
GAAAAGAAAATAAACCATACATTCAAGTTGATATTGGAGGTGGGCAAACAAAGACATTT
GCTCCTGAAGAAATTTCTGCCATGGTTCTCACTAAAATGAAAAGAACCGCTGAGGCTTAT
TTGGGAAAGAAGTTACCCATGCAGTTGTTACTGTACCAGCCTATTTAATGATGCCCAA
CGCCAAGCAACCAAGACGCTGGAATATTGCTGGCCTAAATGTTATGAGGATCATCAAC
GAGCCTACGGCAGCTGCTATTGCTTATGGCCTGGATAAGAGGGAGGGGAGAAGAATC
CTGGTGTGGTGGTGGCGGAACCTTCGATGTGCTCTTCTCACCATTGACAATGGT
GTCTTCGAAGTTGTGGCCACTAATGGAGATACTCATCTGGGTGGAGAAGACTTTGACCAG
CGTGTCATGGAACACTTCATCAAAGTGTACAAAAGAAGACGGGCAAAGATGTCAGGAAA
GACAATAGAGCTGTGCAGAACTCCGGCCGAGGTAGAAAAGGCCAAACGGGCCCTGTCT
TCTCAGCATCAAGCAAGAATTGAAATTGAGTCCTTCTATGAAGGAGAAGACTTTTCTGAG
ACCCTGACTCGGGCCAAATTTGAAGAGCTCAACATGGATCTGTTCCGGTCTACTATGAAG
CCCGTCCAGAAAGTGTGGAAAGATTCTGATTTGAAGAAGTCTGATATTGATGAAATGTT
CTTGTGGTGGCTCGACTCGAATCCAAAGATTCAGCAACTGGTTAAAGAGTTCTCAAT
GGCAAGGAACCATCCCGTGGCATAAACCAGATGAAGCTGTAGCGTATGGTGTGCTGTG
CAGGCTGGTGTGCTCTCTGGTGATCAAGATACAGGTGACCTGGTACTGCTTGTATGTG
CCCTTACACTTGGTATTGAAACTGTGGGAGGTGTCATGACCAAAGTATTCCAAGGAAC
ACAGTGGTGCCTACCAAGAAGTCTCAGATCTTTTCTACAGCTTCTGATAATCAACCAACT
GTTACAATCAAGGTCTATGAAGGTGAAAGACCCCTGACAAAAGACAATCATCTTCTGGGT
ACATTTGATCTGACTGGAATTCCTCTGCTCCTCGTGGGGTCCCACAGATTGAAGTACC
TTTGAGATAGATGTAATGGTATTCTTCGAGTGACAGCTGAAGACAAGGGTACAGGGAAC
AAAAATAAGATCACAATACCAATGACCAGAATCGCCTGACACCTGAAGAAATCGAAAGG
ATGGTTAATGATGCTGAGAAGTTTGTGAGGAAGACAAAAGCTCAAGGAGCGCATTGAT
ACTAGAAATGAGTTGAAAGCTATGCCTATTCTCTAAAGAATCAGATTGGAGATAAGAA
AAGCTGGGAGGTAACCTTTCCTCTGAAGATAAGGAGACCATGGAAAAGCTGTAGAAGAA
AAGATTGAATGGCTGAAAGCCACCAAGATGCTGACATTGAAGACTTCAAAGCTAAGAAG
AAGAACTGGAAGAAATGTTCAACCAATTATCAGCAAATCTATGGAAGTGCAGGCCCT
CCCCAACTGGTGAAGAGGATACAGCAGAAAAGATGAGTTGTAG

```

Clone variation with respect to NM_005347.4

- Restriction Sites:** Please inquire
- ACCN:** NM_005347
- Insert Size:** 2500 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_005347.2](#), [NP_005338.1](#)

RefSeq Size: 3925 bp

RefSeq ORF: 1965 bp

Locus ID: 3309

UniProt ID: [P11021](#)

Cytogenetics: 9q33.3

Domains: HSP70

Protein Families: Druggable Genome

Protein Pathways: Antigen processing and presentation, Prion diseases

Gene 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]