

Recombinant Human Heat Shock 70kDa Protein 5 (Glucose-regulated Protein, 78kDa), His-tagged

Cat. No. HSPA5-332H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanHSPA5 protein, fused to His-tag at C-terminus, was expressed in E.coli and purified by using conventional chromatography techniques (640 aa, 71 kDa).
Species	Human
Source	E.coli
Description	Binding immunoglobulin protein (BiP)belongs to the family of ~70 kDa heat shock proteins (HSP 70). It is a stress response protein which is induced by agents or conditions that adversely affect endoplasmic reticulum (ER) function. This protein is essential for the proper glycosylation, folding as well as for the maintenance of cell homeostasis and the prevention of apoptosis.
Formulation	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol.
Molecular Weight	71 kDa (640 aa).
Purity	> 90% by SDS – PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Sequence	MEEDKKEDVG TVVGIDLGTT YSCVGVFKNG RVEIIANDQG NRITPSYVAF TPEGERLIGD AAKNQLTSNP ENTVFDAKRL IGRTWNDPSV QQDIKFLPFK

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VVEKKTTPYI QVDIGGGQTK TFAPEEISAM VLTKMKETAE AYLGGKVTHA
VVTVPAYFND AQRQATKDAG TIAGLNMRI INEPTAAAIA YGLDKREGEK
NILVFDLGGG TFDVSLTID NGVFEVVATN GDTHLGGEDF DQVRMEHFIK
LYKKKTGKDV RKDNRAVQKL RREVEKAKRA LSSQHQARIE IESFYEGEDF
SETLTRAKFE ELNMDLFRST MKPVQKVLED SDLKKSDIDE IVLVGGSTRI
PKIQQLVKEF FNGKEPSRGI NPDEAVAYGA AVQAGVLSGD QDTGDLVLLD
VCPLTLGIET VGGVMTKLIP RNTVVPTKKS QIFSTASDNQ PTVTIKVYEG
ERPLTKDNHL LGTFDLTGIP PAPRGVPQIE VTFEIDVNGI LRVTAEDKGT
GNKNKITITN DQNRLTPEEI ERMVNDAEKF AEEDKKLKER IDTRNELESY
AYSLKNQIGD KEKLGGKLSS EDKETMEKAV EEKIEWLESH QDADIEDFKA
KKKELEEIVQ PIISKLYGSA GPPPTGEEDT AELEHHHHHH

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION
Gene Name

HSPA5

Synonyms

HSPA5; heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa); HSPA5 heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa); BIP; MIF2; GRP78; GRP 78; FLJ26106; BiP; OTTHUMP00000022124; Heat shock 70 kDa protein 5; Endoplasmic reticulum luminal Ca(2+)-binding protein grp78; Heat-shock 70kD protein-5 (glucose-regulated protein, 78kD); Immunoglobulin heavy chain-binding protein; heat shock 70kD protein 5 (glucose-regulated protein, 78kD); heat shock 70kDa protein 5.

Gene ID

3309

mRNA Refseq

NM_005347.3

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Protein Refseq	NP_005338.1
MIM	138120
UniProt ID	P11021
Chromosome Location	9q33-q34.1
Pathway	Antigen processing and presentation; Neurodegenerative Disorders; Prion disease; Hemostasis.
Function	ATP binding; calcium ion binding; caspase inhibitor activity; nucleotide binding; protein binding, bridging; ribosome binding; unfolded protein binding.

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