Recombinant human GRP78/HSPA5 protein

Catalog Number: BIP0901

PRODUCT INFORMATION

Expression system
E.coli

Domain
20-650aa

UniProt No.
P11021

NCBI Accession No.
NP_005338.1

Alternative Names
Heat shock protein family A member 5, Heat shock 70kD protein 5, HSP70 family protein 5, Glucose-regulated protein 78kD, Binding-immunoglobulin protein, BiP, Endoplasmic reticulum chaperone BiP, Glucose-regulated protein 78kDa, Immunoglobulin heavy chain-binding protein

PRODUCT SPECIFICATION

Molecular Weight
71 kDa (640aa)

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Purity
> 90% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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. Recombinant human BIP protein, fused to His-tag at C-terminus,

was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

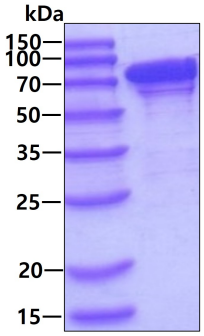
MEEDKKEDVG TVVGIDLGTT YSCVGVFKNG RVEIIANDQG NRITPSYVAF TPEGERLIGD AAKNQLTSNP ENTVFDAKRL IGRTWNDPSV QQDIKFLPFK VVEKKTKPYI QVDIGGGQTK TFAPEEISAM VLTKMKETAE AYLGKKVTHA VVTVPAYFND AQRQATKDAG TIAGLNVMRI INEPTAAAIA YGLDKREGEK NILVFDLGGG TFDVSLLTID NGVFEVVATN GDTHLGGEDF DQRVMEHFIK LYKKKTGKDV RKDNRAVQKL RREVEKAKRA 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 AE<LEHHHHHH>

General References

Lee LC., et al. (2009) Clin Chim Acta. 400(1-2):56-62.
Racek T., et al. (2008) J Biol Chem. 283(49):34305-14.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.