

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,

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

Amino acid Sequence

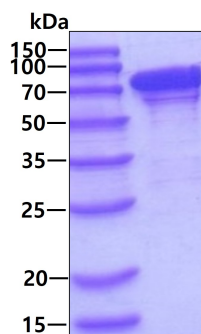
MEEDKKEDVG TVVGIDLGTT YSCVGVFKNG RVEIANDQG NRITPSYVAF TPEGERLIGD AAKNQLTSNP ENTVFDKRL
IGRTWNDPSV QQDIKFLPFK VVEKTKPYI QVDIGGGQTK TFAPEEISAM VLTKMKETA EAYLGKKVTHA VVTVPAYFND
AQRQATKDAG TIAGLNMRI INEPTAAAIA YGLDKREGEK NILVFDLGGG TFDVSLTID NGVFEVVATN GDTHLGGEDF
DQRVMEHFIL LYKKKTGKDV RKDNRAVQKL RREVEKAKRA LSSQHQARIE IESFYEGEDF SETLTRAKFE ELNMDLFRST
MKPVQKVLED SDLKSDIDE IVLVGGSTRI PKIQQLVKEF FNGKEPSRGI NPDEAVAYGA AVQAGVLSGD QDTGDLVLLD
VCPLTLGIET VGGVMTKLIP RNTVVPTKKS QIFSTASDNQ PVTIKVYEG ERPLTKDNHL LGTFDLTGIP PAPRGVPQIE
VTFEIDVNGI LRVTAEDKGT GNKNKITITN DQNRLTPEEI ERMVNDAEKF AEEDKKLKER IDTRNELESY AYSLKNQIGD
KEKLGKGLSS 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



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