



Product Datasheet

Product Name	Heat Shock 70kDa Protein 5 Human Recombinant
Cata No	CB501410
Source	<i>Escherichia Coli.</i>
Synonyms	BIP, MIF2, GRP78, FLJ26106, HSPA5, 78 kDa glucose-regulated protein, GRP 78, Heat shock 70 kDa protein 5, Immunoglobulin heavy chain-binding protein, Endoplasmic reticulum lumenal Ca(2+)-binding protein grp78.

Description

Once Chinese hamster K12 cells are starved from glucose, the synthesis of GRP (glucose-regulated protein) expressed. HSPA5 also called BiP, is part of the HSP70 family and plays a role in the folding and assembly of proteins in the endoplasmic reticulum. HSPA5 plays a key role in monitoring protein transport through the cell.

HSPA5 is a stress response protein which is induced by agents or conditions that adversely affect endoplasmic reticulum function. HSPA5 is crucial for the proper glycosylation, folding as well as for the maintenance of cell homeostasis and the prevention of apoptosis. HSPA5 is differentially expressed in the dorsolateral prefrontal cortex from patients with schizophrenia. HSPA5 guides posttranslational hepatitis B virus large envelope protein import into the mammalian ER. HSPA5 actively regulates multiple malignant phenotypes, including cell growth, migration, and invasion.

Recombinant Human HSPA5 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 640 amino acids (2-650 a.a.) and having a molecular mass of 70 kDa.

HSPA5 human recombinant is fused to an 8 amino acid His Tag at C-terminus and purified by conventional chromatography techniques.

Physical Appearance

Sterile filtered colorless solution.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Formulation

The HSPA5 protein solution contains 20mM Tris-HCl, pH-8 & 10% Glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

Sequence

EEDKKEDVG TVVGIDLGTT YSCVGVFKNG
RVEIIANDQG NRITPSYVAF TPEGERLIGD
AAKNQLTSNP ENTVFDKRL IGRTWNDPSV
QQDIKFLPFK VVEKKTkPYI QVDIGGGQTK
TFAPEEISAM VLTKMKETAE AYLGKKVTHA
VVTVPAYFND AQRQATKDAG TIAGLNVMRI
INEPTAAAIA YGLDKREGEK NILVFDLGGG
TFDVSLTID NGVFEVVATN GDTHLGGEDF
DQRVMEHFik LYKKKTgKDV RkDNRAVQKL
RREVEKAKRA LSSQHqARIE IESFYEGEDF
SETLTRAKFE ELNMDLFRST MKPVQkVLED
SDLKkSDIDE IVLVGGSTRI PKIQQLVKEF
FNGKEPSRGI NPDEAVAYGA AVQAGVLSGD
QDTGDLVLLD VCPLTLGIET VGGVMtkLIP
RNTVVPTkKS QIFSTASDNQ PTVTIkVYEG

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ERPLTKDNHL LGTFDLTGIP PAPRGVPQIE
VTFEIDVNGI LRVTAEDKGT GNKNKITITN
DQNRLTPEEI ERMVNDAEFK AEEDKCLKER
IDTRNELESY AYSLKNQIGD KEKLGKGLSS
EDKETMEKAV EEKIEWLESH QDADIEDFKA

KKKELEEIVQ PIISKLYCSA GHPPTQVPT
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