

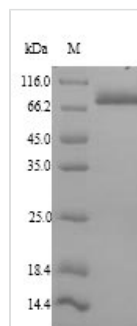


Recombinant Mouse Endoplasmic reticulum chaperone BiP (Hspa5)

Product Code	CSB-YP010827MO
Relevance	Probably plays a role in facilitating the assembly of multimeric protein complexes inside the endoplasmic reticulum. Involved in the correct folding of proteins and degradation of misfolded proteins via its interaction with DNAJC10, probably to facilitate the release of DNAJC10 from its substrate (By similarity).
Abbreviation	Recombinant Mouse Hspa5 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P20029
Alias	Short name: GRP-78 Alternative name(s): Heat shock 70 kDa protein 5 Immunoglobulin heavy chain-binding protein Short name: BiP
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	EEEDKKEDVGTVVIGIDLGTYSVGVFKNGRVEIIANDQGNRITPSYVAFTPEG ERLIGDAAKNQLTSNPENTVFDKRLIGRTWNPVSVQQDIKFLPFKVVVEKKTTP YIQVDIGGGQTKTFAPEEISAMVLTKMKETAAYLGKKVTHAVVTPAYFNDAQ RQATKDAGTIAGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDLGGGTFDVSLL TIDNGVFEVVATNGDTHLGGEDFDQRMVMEHFILYKKKTGKDVVRKDNRAVQKL RREVEKAKRALSSQHQARIEIESFFEGEDFSETLTRAKFEELNMDLFRSTMKPV QKVLESDSLKKSDIDEIVLVGGSTRIPKIQQLVKEFFNGKEPSRGINPDEAVAYG AAVQAGVLSGDQDTGDLVLLDVCPLTLGIETVGGVMTKLIPRNTVVPTKKSQIF STASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPPAPRGVPQIEVTFEIDVN GILRVTAEDKGTGNKNKITITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDT RNELESYAYSILKNQIGDKEKLGGKLSSSEDKETMEKAVEEKIEWLESHQDADIE DFKAKKKELEEIVQPIISKLYGSGGPPPTGEEDTSEKDEL
Research Area	Tags & Cell Markers
Source	Yeast
Target Names	Hspa5
Protein Names	Recommended name: 78 kDa glucose-regulated protein Short name= GRP-78 Alternative name(s): Heat shock 70 kDa protein 5 Immunoglobulin heavy chain-binding protein Short name= BiP
Expression Region	20-655aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.



Tag Info	N-terminal 6xHis-tagged
Mol. Weight	72.5kDa
Protein Length	Full Length of Mature Protein

Image


(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant endoplasmic reticulum chaperone BiP (Hspa5) was produced as a fusion protein with an N-terminal 6xHis tag in the yeast cells. The encoding sequence contains 20-655aa of mouse Hspa5 protein. The purity of this full-length of mature Hspa5 protein reached up to 90% determined by SDS-PAGE. It migrated to a molecular mass band of 78-90 kDa on the gel. The slightly higher result is attributed to glycosylation. This recombinant Hspa5 protein can induce immune reactions in the immunized animals to thus get specific antibodies. Besides, it also may find uses in the tags and cell markers research area.

Heat shock protein family A member 5 (Hspa5), also known as GRP78 or Bip, is a member of heat shock proteins (HSPs) that are involved in proper protein folding, assembly of multiprotein complexes, as well as protein transport and degradation. In response to the accumulation of misfolded proteins in the ER, endoplasmic chaperone protein Hspa5 dissociates from ATF6-IRE1-PERK complex and then translocates into the lumen of the ER. This process unlocks the activity of the signal transducers previously blocked, which leads to the activation of the UPR signaling pathways. Recently, surface HSPA5 has been reported to be a potential receptor of some viruses, including the novel SARS-CoV-2.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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