Recombinant Human GRP-78

Source

- **Species** Human
- **Gene Symbols** HSPA5
- **Accession Number** P11021
- **Expressed Region** Glu19-Leu654
- **Synonyms** GRP-78, Heat Shock 70 kDa Protein 5 (Glucose-Regulated Protein, 78 kDa), GRP 78, Endoplasmic Reticulum Lumenal Ca(2+)-Binding Protein Grp78, Immunoglobulin Heavy Chain-Binding Protein, BIP, Heat Shock 70 kDa Protein 5 (Glucose-Regulated Protein, 78 kDa), Epididymis Secretory Sperm Binding Protein Li 89n, 78 kDa Glucose-Regulated Protein, Heat Shock 70 kDa Protein 5, HEL-S-89n, GRP-78, MIF2.

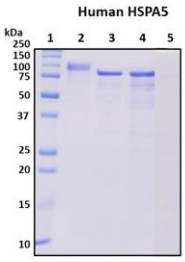
Preparation

- **Expression System** Human embryonic kidney 293 (HEK293) cells
- **Tag** *N*-terminal histidine tag
- **Purification** His-tag affinity purification by immobilized metal ion affinity chromatography (IMAC)
- **Purity** >95%
- **Endotoxin Level** <0.5 EU per µg of the protein as determined by the LAL method
- **Purity determined** By SDS-PAGE under reducing conditions and visualized by Coomassie blue staining
- **Molecular Weight** Recombinant human HSPA5 protein has a calculated molecular mass of 70 kDa. Due to the abundant glycosylation, it migrates as approximately 80-100 kDa protein bands in SDS-PAGE under DTT, beta-mercaptoethanol reducing conditions.

Protein Specifications

- **Format** Lyophilized powder
- **Formulation** Lyophilized from a 0.2 µm filtered solution in PBS (pH 7.4)
- **Concentration** Determined by Pierce BCA protein assay
- **SDS-PAGE Image**

Figure 1. Deglycosylation of purified recombinant proteins. Purified proteins were untreated (Lane 2) or treated with Protein Deglycosylation Kit under native (Lane 3) or reducing (Lane 4) conditions. Deglycosylation treatment resulted in a mobility shift of the protein to produce one major band at the expected size, thus indicating that the untreated recombinant protein (Lane 2) was glycosylated.
Lane 1: Protein standard ladder (kDa)
Lane 2: Untreated protein under reducing conditions
Lane 3: Treated protein with deglycosylation enzymes under native conditions
Lane 4: Treated protein with deglycosylation enzymes under reducing conditions.
Lane 5: Deglycosylation mixture only without target proteins.



Shipping

The product is shipped with ice packs

Storage/Stability

Upon arrival, the lyophilized protein may be stored for 2 weeks at 4°C. For long term storage, it is recommended to store desiccated below -20°C in a manual defrost freezer. Following reconstitution, the protein may be stored for 2 weeks under sterile conditions at -20°C. For long term storage, it is recommended to make appropriate aliquots and store at -80°C. Avoid repeated freeze-thaw cycles.