

## Recombinant Human GRP78 Protein (His Tag)

**Catalog Number:** PDEH100838

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

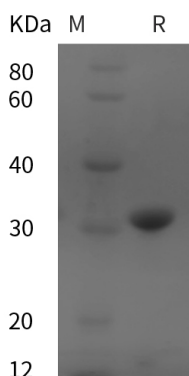
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human GRP78 protein Gln261-Glu470, with an N-terminal His
<b>Calculated MW</b>	23.0 kDa
<b>Observed MW</b>	30 kDa
<b>Accession</b>	P11021
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Human GRP78 proteins, 2 µg/lane of Recombinant Human GRP78 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 30 kDa.

### Background

GRP78 (Glucose-regulated protein 78 kDa, also BiP and HSPA5) is a 72 kDa member of the heat shock protein 70 family of proteins. Intracellularly, GRP78 is an endoplasmic reticulum chaperone that participates in protein folding, extracellularly, it induces IL-10 production from T cells and interacts with Cripto to block TGF-beta signaling. Human GRP78 precursor is 654 amino acids (aa) in length. It contains an 18 aa signal sequence and a 636 aa mature region that shows a hydantoinase A region (aa 145-245) and a C-terminal KDEL motif that is present on intracellular GRP78, but absent on secreted GRP78. There is alternative splicing in the signal sequence (aa 1-10), and multiple single aa substitution.

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Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017