

## GFER Protein, Human, Recombinant (His)

### General Information

Synonyms:	Augmenter of liver regeneration;FAD-linked sulfhydryl oxidase ALR;HERV1;GFER;HPO;ALR;Hepatopoietin
Protein Construction:	Met1-Asp125
Species:	Human
Expression Host:	E. coli
Accession:	P55789-2
Molecular Weight:	15 KDa (reducing condition)
AA Sequence:	Met1-Asp125

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Glycine-HCl, 150 mM NaCl, pH 2.5.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months.

Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

GFER is a hepatotrophic growth factor and flavin-linked sulfhydryl oxidase which belongs to the Erv1/ALR family of proteins. GFER is widely expressed in various human tissues. They are two isoforms of this protein. Isoform 1 could regenerate the redox-active disulfide bonds in CHCHD4/MIA40, a chaperone essential for disulfide bond formation and protein folding in the mitochondrial intermembrane space. The reduced form of CHCHD4/MIA40 forms a

transient intermolecular disulfide bridge with GFER/ERV1, resulting in regeneration of the essential disulfide bonds in CHCHD4/MIA40, while GFER/ERV1 becomes re-oxidized by donating electrons to cytochrome c or molecular oxygen. Isoform 2 may act as an autocrine hepatotrophic growth factor promoting liver regeneration. GFER could also induce the expression of S-adenosylmethionine decarboxyl-ase and ornithine decarboxylases (ODC). S-adenosylmethionine decarboxyl-ase and ornithine decarboxylases play an important role in the synthesis of polyamines.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481