

Recombinant Human GFER Protein (His Tag)

Catalog No. PKSH032412

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

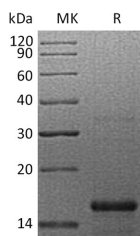
Description

Synonyms	FAD-linked sulphhydryl oxidase ALR;GFER;Augmenter of liver regeneration;hERV1;Hepatopoietin;GFER;ALR;HERV1;HPO
Species	Human
Expression Host	E.coli
Sequence	Met 1-Asp125
Accession	P55789-2
Calculated Molecular Weight	17.3 kDa
Observed molecular weight	15 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50mM Glycine-HCl, 150mM NaCl, pH 2.5. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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.