

# Recombinant Human GFER Protein (His Tag)

Catalog Number: PKSH032412

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

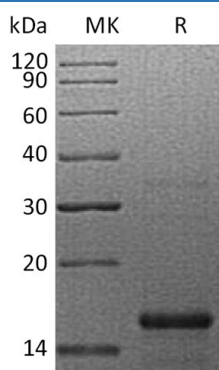
## Description

<b>Species</b>	Human
<b>Mol_Mass</b>	17.3 kDa
<b>Accession</b>	P55789-2
<b>Bio-activity</b>	Not validated for activity

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg 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 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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

GFER is a hepatotropic 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 hepatotropic growth factor promoting liver regeneration. GFER could also induce the expression of S-adenosylmethionine decarboxylase and ornithine decarboxylases (ODC). S-adenosylmethionine decarboxylase and ornithine decarboxylases play an important role in the synthesis of polyamines.

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