Recombinant Protein Technical Manual

Recombinant Human GFER Protein (His Tag)

RPES3441

Product Data:

Product SKU: RPES3441

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P55789

Protein Information:

Molecular Mass: 17.3 kDa

AP Molecular Mass: 15 kDa

Tag: N-6His

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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 PBS, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: FAD-linked sulfhydryl oxidase ALR;GFER;Augmenter of liver regeneration;hERV1;Hepatopoietin;GFER;ALR;HERV1;HPO

Immunogen Information:

Sequence: Met 1-Asp125

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.