Recombinant Human GFER

Catalog No: C700

Description	Recombinant Human Growth Factor, Augmenter of Liver Regeneration is produced by our E.coli expression system and the target gene encoding Met1-Asp125 is expressed with a 6His tag at the N-terminus.
Source	Human Cells
Alternative name	FAD-linked sulfhydryl oxidase ALR;Augmenter of liver regeneration; GFER; hERV1; Hepatopoietin; GFER; ALR; HERV1; HPO
Accession No.	P55789
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Quality Control	Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Amino Acid Sequence	MGSSHHHHHHSSGLVPRGSHMMRTQQKRDTKFREDCPPDREELGRHSWAVLHTLAAYYPDLPTPEQQQ DMAQFIHLFSKF YPCEECAEDLRKRLCRNHPDTRTRACFTQWLCHLHNEVNRKLGKPDFDCSKVDERWRDGWKDGSCD
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 dec arboxylases play an important role in the synthesis of polyamines.

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