10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GFER Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11673b

Product Information

Application	WB, FC, E
Primary Accession	P55789
Other Accession	NP_005253.3
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB14532
Calculated MW	23449
Antigen Region	173-202

Additional Information

Gene ID	2671
Other Names	FAD-linked sulfhydryl oxidase ALR, Augmenter of liver regeneration, hERV1, Hepatopoietin, GFER, ALR, HERV1, HPO
Target/Specificity	This GFER antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 173-202 amino acids from the C-terminal region of human GFER.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GFER Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GFER
Synonyms	ALR, HERV1, HPO
Function	[Isoform 1]: FAD-dependent sulfhydryl oxidase that regenerates 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.
Cellular Location	[Isoform 1]: Mitochondrion intermembrane space. Mitochondrion
Tissue Location	Ubiquitously expressed. Highest expression in the testis and liver and low expression in the muscle

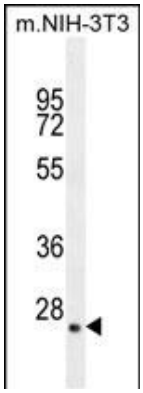
Background

The hepatotrophic factor designated augmenter of liver regeneration (ALR) is thought to be one of the factors responsible for the extraordinary regenerative capacity of mammalian liver. It has also been called hepatic regenerative stimulation substance (HSS). The gene resides on chromosome 16 in the interval containing the locus for polycystic kidney disease (PKD1). The putative gene product is 42% similar to the scERV1 protein of yeast. The yeast scERV1 gene had been found to be essential for oxidative phosphorylation, the maintenance of mitochondrial genomes, and the cell division cycle. The human gene is both the structural and functional homolog of the yeast scERV1 gene.

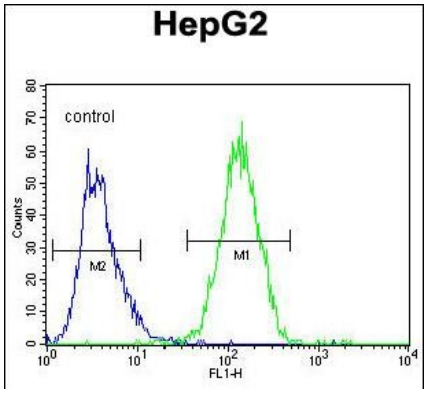
References

Dong, L.Y., et al. Biochem. J. 431(2):277-287(2010)
Li, W., et al. FEBS Lett. 584(18):3929-3935(2010)
Daithankar, V.N., et al. Biochemistry 49(31):6737-6745(2010)
Dayoub, R., et al. Biochem. Biophys. Res. Commun. 395(4):465-470(2010)
Chang, J., et al. World J. Gastroenterol. 16(2):193-200(2010)

Images



GFER Antibody (C-term) (Cat. #AP11673b) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane).This demonstrates the GFER antibody detected the GFER protein (arrow).



GFER Antibody (C-term) (Cat. #AP11673b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.