

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GFER/ALR in ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 829812
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human GFER/ALR Arg82-Asp205 Accession # P55789
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

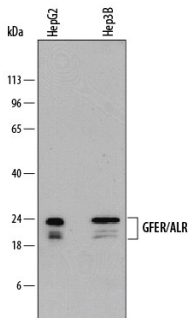
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

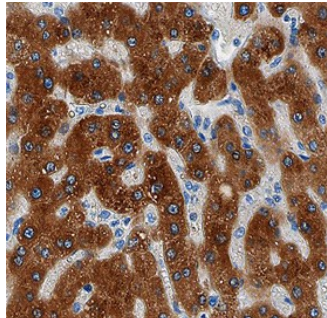
DATA

Western Blot



Detection of Human GFER/ALR by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line and Hep3B human hepatocellular carcinoma cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human GFER/ALR Monoclonal Antibody (Catalog # MAB7940) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for GFER/ALR at approximately 20-24 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



GFER/ALR in Human Liver. GFER/ALR was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human GFER/ALR Monoclonal Antibody (Catalog # MAB7940) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counter-stained with hematoxylin (blue). Specific staining was localized to cytoplasm of hepatocytes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GFER, also known as Augmenter of Liver Regeneration (ALR) and Hepatopoietin, is an approximately 30 kDa mitochondrial sulfhydryl oxidase that plays a role in protein disulfide bond formation. Alternative splicing of human GFER generates a 15 kDa secreted isoform that lacks the 80 N-terminal amino acids. Within aa 82-205, human GFER shares approximately 86% aa sequence identity with mouse and rat GFER. GFER protects hepatocytes from toxin-induced damage, promotes hepatic regeneration, and inhibits the metastasis of hepatocellular carcinoma. It also restricts the proliferation of pluripotent and hematopoietic stem cells and maintains mitochondrial integrity.