SANTA CRUZ BIOTECHNOLOGY, INC.

FGL1 (G-15)-R: sc-55957-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hepassocin, also known as hepatocyte-derived Fibrinogen-related protein-1 (HFREP-1), LFIRE1 or FGL1, is a member of the Fibrinogen family of proteins containing a C-terminal Fibrinogen-like domain. It is a secreted protein that exists as a homodimer and is exclusively expressed in the adult and fetal liver. Hepassocin strongly associates with Fibrin during clot formation and may also associate with Fibrinogen. It is upregulated during liver regeneration and functions as a regulator in liver cell growth. Hepassocin has mitogenic activity and may play a role in liver development and function. It has high sequence homology with Fibrinogen β and Fibrinogen γ, however it lacks a platelet-binding site, a Thrombin-sensitive site and a cross-linking region. Hepassocin is downregulated in hepatocellular carcinomas (HCC) and its level of expression in HCC highly correlates with the degree of tumor differentiation. This suggests that Hepassocin may have growth suppressor activity.

REFERENCES

1. Yamamoto, T., et al. 1993. Molecular cloning and initial characterization of a novel Fibrinogen-related gene, HFREP-1. Biochem. Biophys. Res. Commun. 193: 681-687.
2. Isomura, M., et al. 2000. Sequence analysis of a total of three megabases of DNA in two regions of chromosome 8p. DNA Res. 6: 387-400.
3. Hara, H., et al. 2000. Isolation and characterization of a novel liver-specific gene, Hepassocin, upregulated during liver regeneration. Biochim. Biophys. Acta 1492: 31-44.
4. Hara, H., et al. 2001. Molecular cloning and functional expression analysis of a cDNA for human Hepassocin, a liver-specific protein with hepatocyte mitogenic activity. Biochim. Biophys. Acta 1520: 45-53.
5. Zimmermann, A. 2002. Liver regeneration: the emergence of new pathways. Med. Sci. Monit. 8: RA53-RA63.
6. Yan, J., et al. 2003. Cloning and characterization of a mouse liver-specific gene mfrep-1, upregulated in liver regeneration. Cell Res. 12: 353-361.

CHROMOSOMAL LOCATION

Genetic locus: FGL1 (human) mapping to 8p22; Fgl1 (mouse) mapping to 8 A4.

SOURCE

FGL1 (G-15)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FGL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55957 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

FGL1 (G-15) is recommended for detection of FGL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FGL1 siRNA (h): sc-62453, FGL1 siRNA (m): sc-62454, FGL1 shRNA Plasmid (h):sc-62453-SH, FGL1 shRNA Plasmid (m): sc-62454-SH, FGL1 shRNA (h) Lentiviral Particles: sc-62453-V and FGL1 shRNA (m) Lentiviral Particles: sc-62454-V.

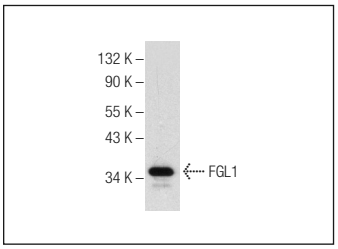
Molecular Weight of FGL1: 34 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human liver extract: sc-363766 or mouse embryonic liver extract: sc-24845.

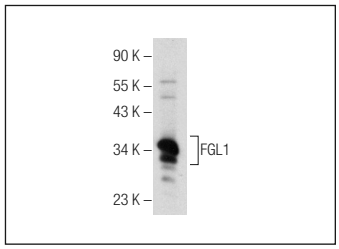
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FGL1 (G-15)-R: sc-55957-R. Western blot analysis of FGL1 expression in human liver tissue extract.



FGL1 (G-15)-R: sc-55957-R. Western blot analysis of FGL1 expression in Hep G2 whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.