SANTA CRUZ BIOTECHNOLOGY, INC.

FGL1 (Y-16): sc-55959

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FGL1, also known as hepatocyte-derived Fibrinogen-related protein-1 (HFREP-1), LFIRE1 or Hepassocin, 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. FGL1 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. FGL1 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. FGL1 is downregulated in hepatocellular carcinomas (HCC) and its level of expression in HCC highly correlates with the degree of tumor differentiation. This suggests that FGL1 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, up-regulated in liver regeneration. Cell Res. 12: 353-361.
7. Yan, J., et al. 2004. LFIRE-1/HFREP-1, a liver-specific gene, is frequently downregulated and has growth suppressor activity in hepatocellular carcinoma. Oncogene 23: 1939-1949.
8. Chan, K.Y., et al. 2006. Positional expression profiling indicates candidate genes in deletion hotspots of hepatocellular carcinoma. Mod. Pathol. 19: 1546-1554.

CHROMOSOMAL LOCATION

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

SOURCE

FGL1 (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FGL1 of human origin.

STORAGE

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

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-55959 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FGL1 (Y-16) 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), 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).

FGL1 (Y-16) is also recommended for detection of FGL1 in additional species, including equine, canine, bovine and porcine.

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.

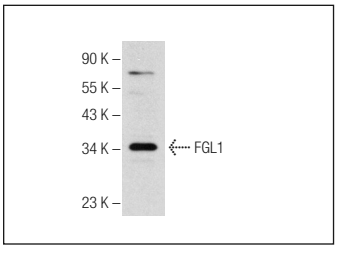
Molecular Weight of FGL1: 34 kDa.

Positive Controls: Human liver extract: sc-363766 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FGL1 (Y-16)-R: sc-55959-R. Western blot analysis of FGL1 expression in human liver tissue extract.

RESEARCH USE

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