

FGL1 (A-8): sc-514057

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.

CHROMOSOMAL LOCATION

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

SOURCE

FGL1 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 130-158 within an internal region of FGL1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FGL1 (A-8) is available conjugated to agarose (sc-514057 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514057 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514057 PE), fluorescein (sc-514057 FITC), Alexa Fluor® 488 (sc-514057 AF488), Alexa Fluor® 546 (sc-514057 AF546), Alexa Fluor® 594 (sc-514057 AF594) or Alexa Fluor® 647 (sc-514057 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514057 AF680) or Alexa Fluor® 790 (sc-514057 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514057 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

FGL1 (A-8) is recommended for detection of FGL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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.

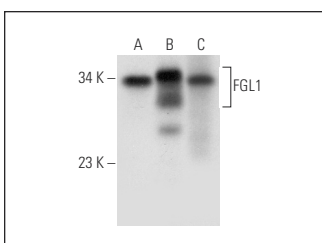
Molecular Weight of FGL1: 34 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human liver extract: sc-363766 or rat liver extract: sc-2395.

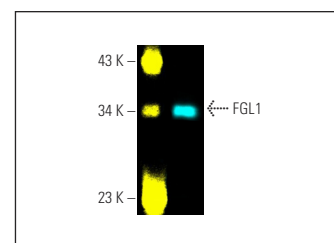
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FGL1 (A-8): sc-514057. Western blot analysis of FGL1 expression in Hep G2 whole cell lysate (A) and human liver (B) and rat liver (C) tissue extracts.



FGL1 (A-8) Alexa Fluor® 647: sc-514057 AF647. Direct fluorescent western blot analysis of FGL1 expression in human liver tissue extract. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 488: sc-516790.

SELECT PRODUCT CITATIONS

1. Bie, F., et al. 2019. Loss of FGL1 induces epithelial-mesenchymal transition and angiogenesis in LKB1 mutant lung adenocarcinoma. *Int. J. Oncol.* 55: 697-707.
2. Murakami, K., et al. 2022. Expression profile of immunoregulatory factors in canine tumors. *Vet. Immunol. Immunopathol.* 253: 110505.

RESEARCH USE

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