SANTA CRUZ BIOTECHNOLOGY, INC.

Gfi-1 (B-9): sc-376949

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Growth factor independent 1 (Gfi-1) is a transcriptional repressor that specifically binds to the DNA consensus sequence TAAATCAC(A/T)GCA. The carboxy-terminus of Gfi-1 contains six C_2H_2-type zinc finger motifs, and zinc fingers 3, 4 and 5 are required for the binding of Gfi-1 to its DNA binding site. Gfi-1 also contains a 20 amino acid SNAG domain which mediates transcriptional repression. It represses Bax at the mRNA and protein levels, resulting in the inhibition of cell death. Gfi1 is expressed outside the lymphoid system in granulocytes and activated macrophages. Gfi-1B, a related protein, is a transcriptional repressor primarily expressed in bone marrow and spleen. Gfi-1B is a direct repressor of the p21 promoter and the Socs 1 and 3 promoters. The genes encoding human Gfi-1 and Gfi-1B map to chromosome 1p22.1 and 9q34.3, respectively.

CHROMOSOMAL LOCATION

Genetic locus: GFI1 (human) mapping to 1p22.1.

SOURCE

Gfi-1 (B-9) is a mouse monoclonal antibody raised against amino acids 41-240 mapping near the N-terminus of Gfi-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376949 X, 200 µg/0.1 ml.

Gfi-1 (B-9) is available conjugated to agarose (sc-376949 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376949 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376949 PE), fluorescein (sc-376949 FITC), Alexa Fluor® 488 (sc-376949 AF488), Alexa Fluor® 546 (sc-376949 AF546), Alexa Fluor® 594 (sc-376949 AF594) or Alexa Fluor® 647 (sc-376949 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376949 AF680) or Alexa Fluor® 790 (sc-376949 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Gfi-1 (B-9) is recommended for detection of Gfi-1 of human origin by Western Blotting (starting dilution 1:100, 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 Gfi-1 siRNA (h): sc-35467, Gfi-1 shRNA Plasmid (h): sc-35467-SH and Gfi-1 shRNA (h) Lentiviral Particles: sc-35467-V.

Gfi-1 (B-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

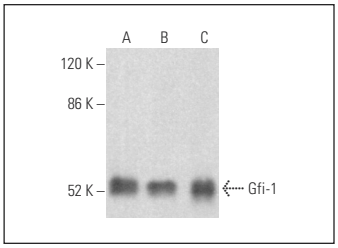
Molecular Weight of Gfi-1: 55 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, THP-1 cell lysate: sc-2238 or HL-60 whole cell lysate: sc-2209.

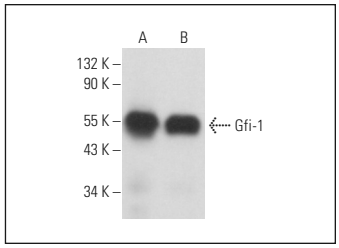
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Gfi-1 (B-9): sc-376949. Western blot analysis of Gfi-1 expression in HEL 92.1.7 (**A**) and HL-60 (**B**) whole cell lysates and K-562 nuclear extract (**C**).



Gfi-1 (B-9): sc-376949. Western blot analysis of Gfi-1 expression in THP-1 (**A**) and HL-60 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tatsumi, G., et al. 2020. LSD1-mediated repression of GFI1 super-enhancer plays an essential role in erythroleukemia. Leukemia 34: 746-758.
2. Ravasio, R., et al. 2020. Targeting the scaffolding role of LSD1 (KDM1A) poises acute myeloid leukemia cells for retinoic acid-induced differentiation. Sci. Adv. 6: eaax2746.
3. Albanesi, J., et al. 2020. Transcriptional and metabolic dissection of ATRA-induced granulocytic differentiation in NB4 acute promyelocytic leukemia cells. Cells 9: 2423.
4. van Gils, N., et al. 2020. IGFBP7 activates retinoid acid-induced responses in acute myeloid leukemia stem and progenitor cells. Blood Adv. 4: 6368-6383.
5. Petrusca, D.N., et al. 2022. GFI1-dependent repression of SGPP1 increases multiple myeloma cell survival. Cancers 14: 772.

STORAGE

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

RESEARCH USE

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