SANTA CRUZ BIOTECHNOLOGY, INC.

Gfi-1 (15-8): sc-101053

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. Gfi-1 is expressed as a protein outside the lymphoid system in granulocytes and activated macrophages. Gfi-1B, a related protein, is a transciptional 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.

REFERENCES

1. Gilks, C.B., et al. 1993. Progression of interleukin-2 (IL-2)-dependent rat T cell lymphoma lines to IL-2-independent growth following activation of a gene (Gfi-1) encoding a novel zinc finger protein. Mol. Cell. Biol. 13: 1759-1768.
2. Bell, D.W., et al. 1995. Chromosomal localization of a gene, Gfi-1, encoding a novel zinc finger protein reveals a new syntenic region between man and rodents. Cytogenet. Cell Genet. 70: 263-267.

CHROMOSOMAL LOCATION

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

SOURCE

Gfi-1 (15-8) is a mouse monoclonal antibody raised against recombinant Gfi-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Gfi-1 (15-8) is recommended for detection of Gfi-1 of 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), immunohistochemistry (including paraffin-embedded sections) (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.

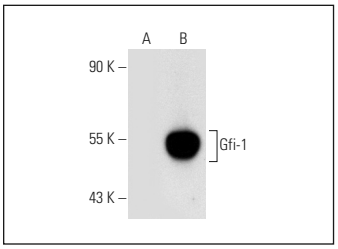
Molecular Weight of Gfi-1: 55 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or Gfi-1 (h): 293T lysate: sc-115318.

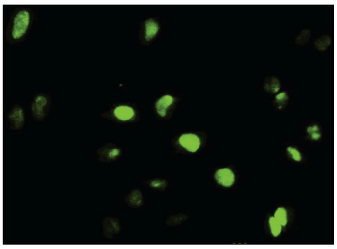
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

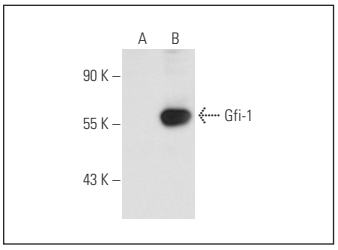
DATA



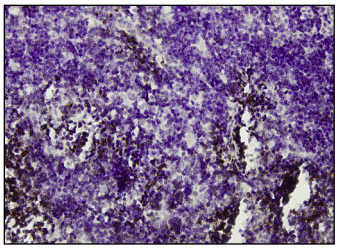
Gfi-1 (15-8): sc-101053. Western blot analysis of Gfi-1 expression in non-transfected: sc-117752 (**A**) and human Gfi-1 transfected: sc-115318 (**B**) 293T whole cell lysates.



Gfi-1 (15-8): sc-101053. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization.



Gfi-1 (15-8): sc-101053. Western blot analysis of Gfi-1 expression in non-transfected: sc-117752 (**A**) and human Gfi-1 transfected: sc-159136 (**B**) 293T whole cell lysates.



Gfi-1 (15-8): sc-101053. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymph node tissue showing nuclear and cytoplasmic localization.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.