

Gfi-1 (h3): 293T Lysate: sc-159136

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 C₂H₂-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 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.

REFERENCES

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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.
3. Grimes, H.L., et al. 1996. The Gfi-1 proto-oncoprotein contains a novel transcriptional repressor domain, SNAG, and inhibits G1 arrest induced by interleukin-2 withdrawal. *Mol. Cell. Biol.* 16: 6263-6272.
4. Grimes, H.L., et al. 1996. The Gfi-1 proto-oncoprotein represses Bax expression and inhibits T cell death. *Proc. Natl. Acad. Sci. USA* 93: 14569-14573.
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6. Rodel, B., et al. 1998. The human homologue (Gfi-1B) of the chicken Gfi gene maps to chromosome 9q34.13—a locus frequently altered in hematopoietic diseases. *Genomics* 54: 580-582.
7. Tong, B., et al. 1998. The Gfi-1B proto-oncoprotein represses p21WAF1 and inhibits myeloid cell differentiation. *Mol. Cell. Biol.* 18: 2462-2473.
8. Jegalian, A.G. et al. 2002. Regulation of SOCS gene expression by the proto-oncoprotein Gfi-1B: Two routes for Stat5 target gene induction by erythropoietin. *J. Biol. Chem.* 277: 2345-2352.
9. Karsunky, H., et al. 2002. Inflammatory reactions and severe neutropenia in mice lacking the transcriptional repressor Gfi-1. *Nature Genet.* 30: 295-300.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

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

PRODUCT

Gfi-1 (h3): 293T Lysate represents a lysate of human Gfi-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Gfi-1 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive Gfi-1 antibodies. Recommended use: 10-20 µl per lane.

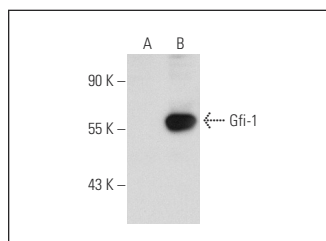
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Gfi-1 (15-8): sc-101053 is recommended as a positive control antibody for Western Blot analysis of enhanced human Gfi-1 expression in Gfi-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

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-159136 (B) 293T whole cell lysates.

RESEARCH USE

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