

Gfi-1B (S-18): sc-54811

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 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 and 9q34.13, 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.
3. Zweidler-McKay, P.A., et al. 1996. Gfi-1 encodes a nuclear zinc finger protein that binds DNA and functions as a transcriptional repressor. *Mol. Cell. Biol.* 16: 4024-4034.
4. 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.
5. 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.
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.

CHROMOSOMAL LOCATION

Genetic locus: GFI1B (human) mapping to 9q34.13; Gfi1b (mouse) mapping to 2 A3.

SOURCE

Gfi-1B (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Gfi-1B 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-54811 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Gfi-1B (S-18) is recommended for detection of Gfi-1B of human and, to a lesser extent, mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

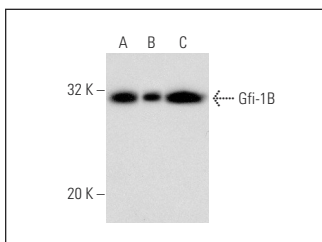
Gfi-1B (S-18) is also recommended for detection of Gfi-1B in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Gfi-1B siRNA (h): sc-62374, Gfi-1B siRNA (m): sc-62375, Gfi-1B shRNA Plasmid (h): sc-62374-SH, Gfi-1B shRNA Plasmid (m): sc-62375-SH, Gfi-1B shRNA (h) Lentiviral Particles: sc-62374-V and Gfi-1B shRNA (m) Lentiviral Particles: sc-62375-V.

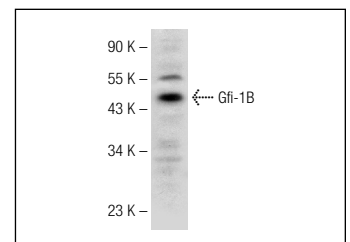
Molecular Weight of Gfi-1B: 41 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, K-562 nuclear extract: sc-2130 or HEL 92.1.7 nuclear extract.

DATA



Gfi-1B (S-18): sc-54811. Western blot analysis of Gfi-1B expression in Jurkat (A), K-562 (B) and HEL 92.1.7 (C) nuclear extracts.



Gfi-1B (S-18): sc-54811. Western blot analysis of Gfi-1B expression in LADMAC nuclear extract.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
Satisfation
Guaranteed

Try **Gfi-1B (B-7): sc-28356**, our highly recommended monoclonal alternative to Gfi-1B (S-18).