

Gfi-1 (M-19): sc-6357

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. Gfi-1 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 another 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 gene encoding human Gfi-1 maps to chromosome 1p22.1 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. 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.
5. Karsunky, H., et al. 2002. Inflammatory reactions and severe neutropenia in mice lacking the transcriptional repressor Gfi-1. *Nat. Genet.* 30: 295-300.

CHROMOSOMAL LOCATION

Genetic locus: GFI1 (human) mapping to 1p22.1, GFI1B (human) mapping to 9q34.13; Gfi1 (mouse) mapping to 5 F, Gfi1b (mouse) mapping to 2 A3.

SOURCE

Gfi-1 (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Gfi-1 of mouse origin.

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-6357 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6357 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

Gfi-1 (M-19) is recommended for detection of Gfi-1 and Gfi-1B of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

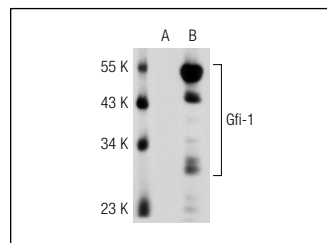
Gfi-1 (M-19) is also recommended for detection of Gfi-1 and Gfi-1B in additional species, including equine, canine, bovine, porcine and avian.

Gfi-1 (M-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Gfi-1: 55 kDa.

Positive Controls: Gfi-1 (h): 293T Lysate: sc-115318, THP-1 cell lysate: sc-2238 or RBL-1 whole cell lysate: sc-364790.

DATA



Gfi-1 (M-19): sc-6357. 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.

SELECT PRODUCT CITATIONS

1. Doan, L.L., et al. 2003. Growth factor independence-1B expression leads to defects in T cell activation, IL-7 receptor alpha expression, and T cell lineage commitment. *J. Immunol.* 170: 2356-2366.
2. Doan, L.L., et al. 2004. Targeted transcriptional repression of Gfi-1 by GFI1 and GFI1B in lymphoid cells. *Nucleic Acids Res.* 32: 2508-2519.
3. Suzuki, J., et al. 2013. A novel small compound SH-2251 suppresses Th2 cell-dependent airway inflammation through selective modulation of chromatin status at the Il5 gene locus. *PLoS ONE* 8: e61785.

STORAGE

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


 MONOS
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Try **Gfi-1 (B-9): sc-376949** or **Gfi-1 (G-11): sc-373960**, our highly recommended monoclonal alternatives to Gfi-1 (M-19).