

# Gfi-1 (G-11): sc-373960



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<sub>2</sub>H<sub>2</sub>-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 9q34.13, 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 protooncoprotein represses Bax expression and inhibits T-cell death. *Proc. Natl. Acad. Sci. USA* 93: 14569-14573.
4. 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.

## CHROMOSOMAL LOCATION

Genetic locus: GF11 (human) mapping to 1p22.1, GF11B (human) mapping to 9q34.13; Gfi1 (mouse) mapping to 5 F, Gfi1b (mouse) mapping to 2 A3.

## SOURCE

Gfi-1 (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 397-422 at the C-terminus of Gfi-1 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-373960 X, 200 µg/0.1 ml.

Gfi-1 (G-11) is available conjugated to agarose (sc-373960 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373960 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373960 PE), fluorescein (sc-373960 FITC), Alexa Fluor® 488 (sc-373960 AF488), Alexa Fluor® 546 (sc-373960 AF546), Alexa Fluor® 594 (sc-373960 AF594) or Alexa Fluor® 647 (sc-373960 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373960 AF680) or Alexa Fluor® 790 (sc-373960 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373960 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Gfi-1 (G-11) is recommended for detection of Gfi-1 and Gfi-1B of mouse, rat and 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).

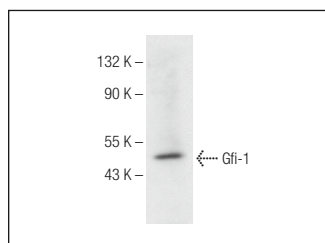
Gfi-1 (G-11) is also recommended for detection of Gfi-1 and Gfi-1B in additional species, including canine, bovine and avian.

Gfi-1 (G-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Gfi-1: 55 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or RBL-1 whole cell lysate: sc-364790.

## DATA



Gfi-1 (G-11): sc-373960. Western blot analysis of Gfi-1 expression in THP-1 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Li, J., et al. 2020. Dynamic changes in *cis*-regulatory occupancy by Six1 and its cooperative interactions with distinct cofactors drive lineage-specific gene expression programs during progressive differentiation of the auditory sensory epithelium. *Nucleic Acids Res.* 48: 2880-2896.
2. Roy, D., et al. 2021. GF11/HDAC1-axis differentially regulates immunosuppressive CD73 in human tumor-associated FOXP3<sup>+</sup> Th17 and inflammation-linked Th17 cells. *Eur. J. Immunol.* 51: 1206-1217.
3. Zhang, L., et al. 2024. AAV-mediated gene cocktails enhance supporting cell reprogramming and hair cell regeneration. *Adv. Sci.* 11: e2304551.

## 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.

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