SANTA CRUZ BIOTECHNOLOGY, INC.

Gfi-1 (H-200): sc-22796

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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 6 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. 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 and 9q34.3, respectively.

REFERENCES

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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 G_1 arrest induced by interleukin-2 withdrawal. Mol. Cell. Biol. 16: 6263-6272.
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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.
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CHROMOSOMAL LOCATION

Genetic locus: GFI1 (human) mapping to 1p22.1; Gfi1 (mouse) mapping to 5 F.

SOURCE

Gfi-1 (H-200) is a rabbit polyclonal antibody raised against amino acids 41-240 mapping near the N-terminus of Gfi-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-22796 X, 200 µg/0.1 ml.

APPLICATIONS

Gfi-1 (H-200) is recommended for detection of Gfi-1 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 (H-200) is also recommended for detection of Gfi-1 in additional species, including canine and bovine.

Suitable for use as control antibody for Gfi-1 siRNA (h): sc-35467, Gfi-1 siRNA (m): sc-35468, Gfi-1 shRNA Plasmid (h): sc-35467-SH, Gfi-1 shRNA Plasmid (m): sc-35468-SH, Gfi-1 shRNA (h) Lentiviral Particles: sc-35467-V and Gfi-1 shRNA (m) Lentiviral Particles: sc-35468-V.

Gfi-1 (H-200) 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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.