SANTA CRUZ BIOTECHNOLOGY, INC.

FOG (M-20): sc-9361

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The FOG family of transcriptional cofactors, including FOG (friend of GATA-1) and FOG-2, are zinc finger proteins that interact with the GATA family of transcriptional regulators. FOG/GATA-1 complexes are required for erythroid and megakaryocyte maturation, and they promote differentiation during embryonic development. These complexes involve the association between multiple zinc fingers on the FOG proteins and the N-terminal zinc finger of GATA proteins. While FOG cooperatively regulates GATA-1 induced transcription, FOG-2 is able to both positively and negatively influence GATA mediated transcription. FOG-2 is predominantly expressed in heart, neurons and gonads, and it preferentially participates in the regulation of GATA-3, GATA-4 and GATA-6. In cardiomyocytes and fibroblasts, FOG-2 inhibits GATA-4 transcriptional activity, yet FOG-2 restores GATA-1 mediated transcription in erythroid cultures deficient in FOG, suggesting that the observed effects of FOG-2 are context specific and vary between cellular systems.

CHROMOSOMAL LOCATION

Genetic locus: ZFPM1 (human) mapping to 16q24.2; Zfpm1 (mouse) mapping to 8 E1.

SOURCE

FOG (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of FOG 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9361 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-9361 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FOG (M-20) is recommended for detection of FOG 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).

Suitable for use as control antibody for FOG siRNA (h): sc-35399, FOG siRNA (m): sc-35400, FOG shRNA Plasmid (h): sc-35399-SH, FOG shRNA Plasmid (m): sc-35400-SH, FOG shRNA (h) Lentiviral Particles: sc-35399-V and FOG shRNA (m) Lentiviral Particles: sc-35400-V.

FOG (M-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of FOG: 125 kDa.

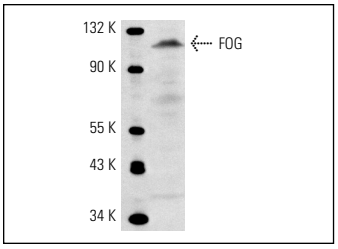
STORAGE

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.

DATA



FOG (M-20): sc-9361. Western blot analysis of FOG expression in rat testis extract.

SELECT PRODUCT CITATIONS

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4. Snow, J.W. and Orkin, S.H. 2009. Translational isoforms of FOG1 regulate GATA1-interacting complexes. J. Biol. Chem. 284: 29310-29319.
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7. Steiner, L.A., et al. 2009. Chromatin architecture and transcription factor binding regulate expression of erythrocyte membrane protein genes. Mol. Cell. Biol. 29: 5399-5412.
8. Miccio, A., et al. 2010. NuRD mediates activating and repressive functions of GATA-1 and FOG-1 during blood development. EMBO J. 29: 442-456.
9. Mancini, E., et al. 2011. FOG-1 and GATA-1 act sequentially to specify definitive megakaryocytic and erythroid progenitors. EMBO J. 31: 351-365.