

FOG (R-18): sc-9363

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.

REFERENCES

1. Tsang, A.P., et al. 1997. FOG, a multitype zinc finger protein, acts as a cofactor for transcription factor GATA-1 in erythroid and megakaryocytic differentiation. *Cell* 90: 109-119.
2. Tsang, A.P., et al. 1998. Failure of megakaryopoiesis and arrested erythropoiesis in mice lacking the GATA-1 transcriptional cofactor FOG. *Genes Dev.* 12: 1176-1188.
3. Tevosian, S.G., et al. 1999. FOG-2: a novel GATA-family cofactor related to multitype zinc-finger proteins Friend of GATA-1 and U-shaped. *Proc. Natl. Acad. Sci. USA* 96: 950-955.
4. Svensson, E.C., et al. 1999. Molecular cloning of FOG-2: a modulator of transcription factor GATA-4 in cardiomyocytes. *Proc. Natl. Acad. Sci. USA* 96: 956-961.

CHROMOSOMAL LOCATION

Genetic locus: ZFPM1 (human) mapping to 16q24.2; Zfp1 (mouse) mapping to 8 E1.

SOURCE

FOG (R-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-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-9363 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-9363 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FOG (R-18) 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). FOG (R-18) is also recommended for detection of FOG in additional species, including canine, bovine and avian.

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 (R-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

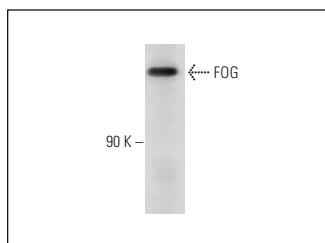
Molecular Weight of FOG: 125 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410 or rat testis extract: sc-2400.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FOG (R-18): sc-9363. Western blot analysis of FOG expression in SK-N-SH whole cell lysate.

RESEARCH USE

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

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Try **FOG (A-6): sc-376189**, our highly recommended monoclonal alternative to FOG (R-18).