SANTA CRUZ BIOTECHNOLOGY, INC.

FOG-2 (M-247): sc-10755

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: ZFPM2 (human) mapping to 8q23.1; Zfpm2 (mouse) mapping to 15 B3.1.

SOURCE

FOG-2 (M-247) is a rabbit polyclonal antibody raised against amino acids 880-1126 mapping at the C-terminus of FOG-2 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10755 X, 200 µg/0.1 ml.

APPLICATIONS

FOG-2 (M-247) is recommended for detection of FOG-2 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-2 (M-247) is also recommended for detection of FOG-2 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for FOG-2 siRNA (h): sc-35401, FOG-2 siRNA (m): sc-35402, FOG-2 shRNA Plasmid (h): sc-35401-SH, FOG-2 shRNA Plasmid (m): sc-35402-SH, FOG-2 shRNA (h) Lentiviral Particles: sc-35401-V and FOG-2 shRNA (m) Lentiviral Particles: sc-35402-V.

FOG-2 (M-247) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

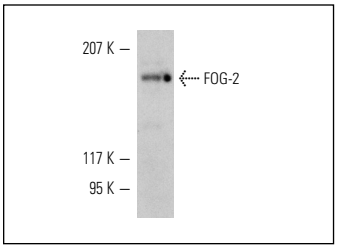
Molecular Weight of FOG-2: 166 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, K-562 whole cell lysate: sc-2203 or rat testis extract: sc-2400.

STORAGE

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

DATA



FOG-2 (M-247): sc-10755. Western blot analysis of FOG-2 expression in SK-N-SH whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ketola, I., et al. 2002. Developmental expression and spermatogenic stage specificity of transcription factors GATA-1 and GATA-4 and their cofactors FOG-1 and FOG-2 in the mouse testis. Eur. J. Endocrinol. 147: 397-406.
2. Kim, G.H., et al. 2009. Translational control of FOG-2 expression in cardiomyocytes by microRNA-130a. PLoS ONE 4: e6161.
3. Leppäranta, O., et al. 2010. Transcription factor GATA-6 is expressed in quiescent myofibroblasts in idiopathic pulmonary fibrosis. Am. J. Respir. Cell Mol. Biol. 42: 626-632.
4. Salonen, J., et al. 2010. Differential developmental expression of transcription factors GATA-4 and GATA-6, their cofactor FOG-2 and downstream target genes in testicular carcinoma *in situ* and germ cell tumors. Eur. J. Endocrinol. 162: 625-631.
5. Jääskeläinen, M., et al. 2010. WNT4 is expressed in human fetal and adult ovaries and its signaling contributes to ovarian cell survival. Mol. Cell. Endocrinol. 317: 106-111.
6. Lasala, C., et al. 2011. SOX9 and SF1 are involved in cyclic AMP-mediated upregulation of anti-Mullerian gene expression in the testicular prepubertal Sertoli cell line SMAT1. Am. J. Physiol. Endocrinol. Metab. 301: E539-E547.

RESEARCH USE

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