

# FOG-2 (M-17): sc-9364

## 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. 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.
4. Fox, A.H., et al. 1999. Transcriptional cofactors of the FOG family interact with GATA proteins by means of multiple zinc fingers. *EMBO J.* 18: 2812-2822.
5. Lu, J.R., et al. 1999. FOG-2, a heart- and brain-enriched cofactor for GATA transcription factors. *Mol. Cell. Biol.* 19: 4495-4502.

## CHROMOSOMAL LOCATION

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

## SOURCE

FOG-2 (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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.

Blocking peptide available for competition studies, sc-9364 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9364 X, 200 µg/0.1 ml.

## APPLICATIONS

FOG-2 (M-17) 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).

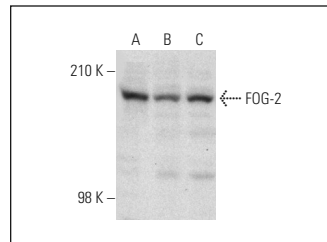
Suitable for use as control antibody for FOG-2 siRNA (h): sc-35401, FOG-2 siRNA (m): sc-35402, FOG-2 shRNA Plasmid (h): sc-35401-SH, FOG-2 shRNA Plasmid (m): sc-35402-SH, FOG-2 shRNA (h) Lentiviral Particles: sc-35401-V and FOG-2 shRNA (m) Lentiviral Particles: sc-35402-V.

FOG-2 (M-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

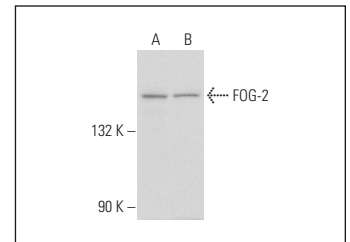
Molecular Weight of FOG-2: 166 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, HeLa whole cell lysate: sc-2200 or SK-N-SH cell lysate: sc-2410.

## DATA



FOG-2 (M-17): sc-9364. Western blot analysis of FOG-2 expression in SK-N-SH whole cell lysate (A) and K-562 (B) and THP-1 (C) nuclear extracts.



FOG-2 (M-17): sc-9364. Western blot analysis of FOG-2 expression in HeLa (A) and THP-1 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Zhang, T., et al. 2014. Obesity occurring in apolipoprotein E-knockout mice has mild effects on fertility. *Reproduction* 147: 141-151.

## 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.



Try **FOG-2 (H-5): sc-398011**, our highly recommended monoclonal alternative to FOG-2 (M-17).