SANTA CRUZ BIOTECHNOLOGY, INC.

GATA-2 (CG2-96): sc-267

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the GATA family share a conserved zinc finger DNA-binding domain and are capable of binding the WGATAR consensus sequence. GATA-1 is erythroid-specific and is responsible for the regulated transcription of erythroid genes. It is an essential component in the generation of the erythroid lineage. GATA-2 is expressed in embryonic brain and liver, HeLa and endothelial cells, as well as erythroid cells. Studies with a modified GATA consensus sequence, AGATCTTA, have shown that GATA-2 and GATA-3 recognize this mutated consensus while GATA-1 has poor recognition of this sequence. This indicates broader regulatory capabilities of GATA-2 and GATA-3 than GATA-1. GATA-3 is highly expressed in T-lymphocytes. GATA-4, GATA-5 and GATA-6 comprise a subfamily of transcription factors. GATA-4 and GATA-6 are found in heart, pancreas and ovary; lung and liver tissues exhibit GATA-6, but not GATA-4, expression. GATA-5 expression has been observed in differentiated heart and gut tissues and is present throughout the course of development in the heart. Although expression patterns of the various GATA transcription factors may overlap, it is not yet apparent how the GATA factors are able to discriminate in binding their appropriate target sites.

REFERENCES

1. Ko, L.J., et al. 1991. Murine and human T-lymphocyte GATA-3 factors mediate transcription through a *cis*-regulatory element within the human T-cell receptor δ gene enhancer. Mol. Cell. Biol. 11: 2778-2784.
2. Dorfman, D.M., et al. 1992. Human transcription factor GATA-2. Evidence for regulation of preproendothelin-1 gene expression in endothelial cells. J. Biol. Chem. 267: 1279-1285.

CHROMOSOMAL LOCATION

Genetic locus: GATA2 (human) mapping to 3q21.3; Gata2 (mouse) mapping to 6 D1.

SOURCE

GATA-2 (CG2-96) is a mouse monoclonal antibody raised against GATA-2.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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-267 X, 200 µg/0.1 ml.

GATA-2 (CG2-96) is available conjugated to agarose (sc-267 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-267 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-267 PE), fluorescein (sc-267 FITC), Alexa Fluor® 488 (sc-267 AF488), Alexa Fluor® 546 (sc-267 AF546), Alexa Fluor® 594 (sc-267 AF594) or Alexa Fluor® 647 (sc-267 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-267 AF680) or Alexa Fluor® 790 (sc-267 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

GATA-2 (CG2-96) is recommended for detection of GATA-2 of mouse, rat, human and avian 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

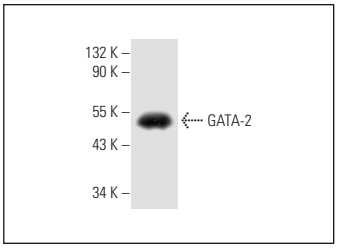
Suitable for use as control antibody for GATA-2 siRNA (h): sc-37228, GATA-2 siRNA (m): sc-37229, GATA-2 shRNA Plasmid (h): sc-37228-SH, GATA-2 shRNA Plasmid (m): sc-37229-SH, GATA-2 shRNA (h) Lentiviral Particles: sc-37228-V and GATA-2 shRNA (m) Lentiviral Particles: sc-37229-V.

GATA-2 (CG2-96) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GATA-2: 50 kDa.

Positive Controls: P815 whole cell lysate: sc-364789, MCP-5 whole cell lysate or TtT-97 nuclear extract.

DATA



GATA-2 (CG2-96): sc-267. Western blot analysis of GATA-2 expression in TtT-97 nuclear extract.

SELECT PRODUCT CITATIONS

1. Peng, H.B., et al. 1995. Induction and stabilization of IκBα by nitric oxide mediates inhibition of NFκB. J. Biol. Chem. 270: 14214-14219.
2. de Waele, L., et al. 2010. Severe gastrointestinal bleeding and thrombocytopenia in a child with an anti-GATA1 autoantibody. Pediatr. Res. 67: 314-319.
3. Fiedler, J., et al. 2011. MicroRNA-24 regulates vascularity after myocardial infarction. Circulation 124: 720-730.
4. Che, Y., et al. 2012. Co-expression of XIAP and cyclin D1 complex correlates with a poor prognosis in patients with hepatocellular carcinoma. Am. J. Pathol. 180: 1798-1807.
5. Bottardi, S., et al. 2013. Direct protein interactions are responsible for Ikaros-GATA and Ikaros-Cdk9 cooperativeness in hematopoietic cells. Mol. Cell. Biol. 33: 3064-3076.

STORAGE

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