SANTA CRUZ BIOTECHNOLOGY, INC.

GATA-5 (M-96): sc-9054

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.

CHROMOSOMAL LOCATION

Genetic locus: Gata5 (mouse) mapping to 2 H4.

SOURCE

GATA-5 (M-96) is a rabbit polyclonal antibody raised against amino acids 302-397 of GATA-5 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-9054 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

GATA-5 (M-96) is recommended for detection of GATA-5 of mouse and rat 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 GATA-5 siRNA (m): sc-35457, GATA-5 shRNA Plasmid (m): sc-35457-SH and GATA-5 shRNA (m) Lentiviral Particles: sc-35457-V.

GATA-5 (M-96) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

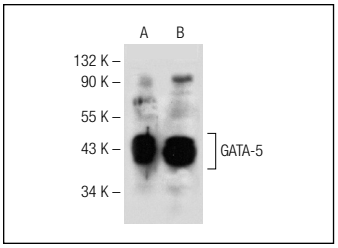
Molecular Weight of GATA-5: 45 kDa.

Positive Controls: mouse embryo extract: sc-364239 or SP2/0 whole cell lysate: sc-364795.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GATA-5 (M-96): sc-9054. Western blot analysis of GATA-5 expression in mouse embryo tissue extract (**A**) and SP2/0 whole cell lysate (**B**).

SELECT PRODUCT CITATIONS

1. Chandrasekar, B. 2005. Interleukin-18 is a pro-hypertrophic cytokine that acts through a phosphatidylinositol 3-kinase-phosphoinositide-dependent kinase-1-Akt-GATA-4 signaling pathway in cardiomyocytes. J. Biol. Chem. 280: 4553-4567.
2. Ishibashi, T., et al. 2011. Conserved GC-boxes, E-box and GATA motif are essential for GATA-4 gene expression in P19CL6 cells. Biochem. Biophys. Res. Commun. 413: 171-175.
3. Agnihotri, S., et al. 2011. A GATA4-regulated tumor suppressor network represses formation of malignant human astrocytomas. J. Exp. Med. 208: 689-702.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **GATA-5 (D-5): sc-373684** or **GATA-5 (E-8): sc-373683**, our highly recommended monoclonal alternatives to GATA-5 (M-96).