

GATA-3 (H-48): sc-9009

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: GATA3 (human) mapping to 10p14; Gata3 (mouse) mapping to 2 A1.

SOURCE

GATA-3 (H-48) is a rabbit polyclonal antibody raised against amino acids 167-214 of GATA-3 of human 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-9009 X, 200 µg/0.1 ml.

APPLICATIONS

GATA-3 (H-48) is recommended for detection of GATA-3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GATA-3 (H-48) is also recommended for detection of GATA-3 in additional species, including canine and porcine.

Suitable for use as control antibody for GATA-3 siRNA (h): sc-29331, GATA-3 siRNA (m): sc-35453, GATA-3 shRNA Plasmid (h): sc-29331-SH, GATA-3 shRNA Plasmid (m): sc-35453-SH, GATA-3 shRNA (h) Lentiviral Particles: sc-29331-V and GATA-3 shRNA (m) Lentiviral Particles: sc-35453-V.

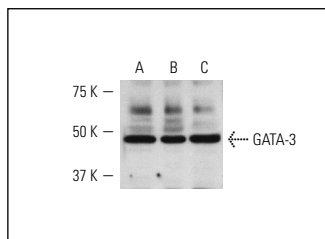
GATA-3 (H-48) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GATA-3: 50 kDa.

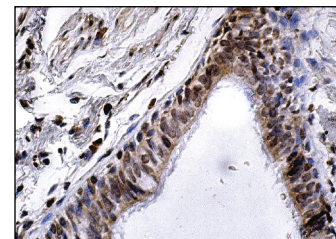
STORAGE

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

DATA



GATA-3 (H-48): sc-9009. Western blot analysis of GATA-3 expression in CCRF-HSB-2 (A), MOLT-4 (B) and Jurkat (C) whole cell lysates.



GATA-3 (H-48): sc-9009. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

- Caramori, G., et al. 2001. Expression of GATA family of transcription factors in T-cells, monocytes and bronchial biopsies. *Eur. Respir. J.* 18: 466-473.
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- Chen, G.Y., et al. 2008. Significance of NFκB/GATA axis in tumor necrosis factor-α-induced expression of 6-sulfated cell recognition glycans in human T-lymphocytes. *J. Biol. Chem.* 283: 34563-34570.
- Magklara, A., et al. 2009. A composite intronic element directs dynamic binding of the progesterone receptor and GATA-2. *Mol. Endocrinol.* 23: 61-73.
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- Sun, Q., et al. 2009. Upstream stimulatory factor 2, a novel FoxA1-interacting protein, is involved in prostate-specific gene expression. *Mol. Endocrinol.* 23: 2038-2047.
- Ralston, A., et al. 2010. Gata3 regulates trophoblast development downstream of Tead4 and in parallel to Cdx2. *Development* 137: 395-403.
- Marconett, C.N., et al. 2010. Indole-3-carbinol triggers aryl hydrocarbon receptor-dependent estrogen receptor (ER)α protein degradation in breast cancer cells disrupting an ERα-GATA3 transcriptional cross-regulatory loop. *Mol. Biol. Cell* 21: 1166-1177.
- Yang, Y., et al. 2011. The Notch ligand Jagged2 promotes lung adenocarcinoma metastasis through a miR-200-dependent pathway in mice. *J. Clin. Invest.* 121: 1373-1385.

RESEARCH USE

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