SANTA CRUZ BIOTECHNOLOGY, INC.

GATA-6 (H-92): sc-9055

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: GATA6 (human) mapping to 18q11.2; Gata6 (mouse) mapping to 18 A1.

SOURCE

GATA-6 (H-92) is a rabbit polyclonal antibody raised against amino acids 358-449 of GATA-6 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-9055 X, 200 µg/0.1 ml.

APPLICATIONS

GATA-6 (H-92) is recommended for detection of GATA-6 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-6 (H-92) is also recommended for detection of GATA-6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GATA-6 siRNA (h): sc-37907, GATA-6 siRNA (m): sc-37908, GATA-6 shRNA Plasmid (h): sc-37907-SH, GATA-6 shRNA Plasmid (m): sc-37908-SH, GATA-6 shRNA (h) Lentiviral Particles: sc-37907-V and GATA-6 shRNA (m) Lentiviral Particles: sc-37908-V.

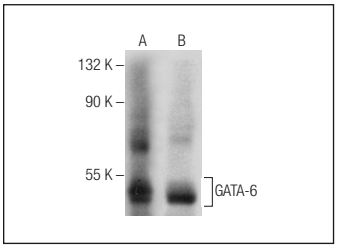
GATA-6 (H-92) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GATA-6: 56 kDa.

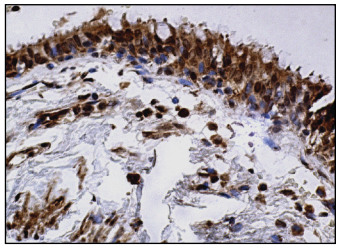
STORAGE

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

DATA



GATA-6 (H-92): sc-9055. Western blot analysis of GATA-6 expression in human heart (**A**) and mouse heart (**B**) tissue extracts.



GATA-6 (H-92): sc-9055. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Hatzis, P., et al. 2002. Dynamics of enhancer-promoter communication during differentiation-induced gene activation. Mol. Cell 10: 1467-1477.
2. Wada, H., et al. 2002. Calcineurin-GATA-6 pathway is involved in smooth muscle-specific transcription. J. Cell Biol. 156: 983-991.
3. Layon, M.E., et al. 2007. Expression of GATA-1 in a non-hematopoietic cell line induces β-globin locus control region chromatin structure remodeling and an erythroid pattern of gene expression. J. Mol. Biol. 366: 737-744.
4. Haveri, H., et al. 2008. Transcription factors GATA-4 and GATA-6 in normal and neoplastic human gastrointestinal mucosa. BMC Gastroenterol. 8: 9.
5. Leppäranta, O., et al. 2009. Transcription factor GATA-6 is expressed in quiescent myofibroblasts in idiopathic pulmonary fibrosis. Am. J. Respir. Cell Mol. Biol. 42: 626-632.
6. Haveri, H., et al. 2009. Enhanced expression of transcription factor GATA-4 in inflammatory bowel disease and its possible regulation by TGF-β1. J. Clin. Immunol. 29: 444-453.
7. 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.
8. Adachi, K., et al. 2010. Role of SOX2 in maintaining pluripotency of human embryonic stem cells. Genes Cells 15: 455-470.
9. Tsoyi, K., et al. 2010. PTEN differentially regulates expressions of ICAM-1 and VCAM-1 through PI3K/Akt/GSK-3β/GATA-6 signaling pathways in TNF-α-activated human endothelial cells. Atherosclerosis 213: 115-121.
10. 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.