

# GATA-6 (C-20): sc-7244

## 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 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-7244 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-7244 X, 200 µg/0.1 ml.

## APPLICATIONS

GATA-6 (C-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). GATA-6 (C-20) 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.

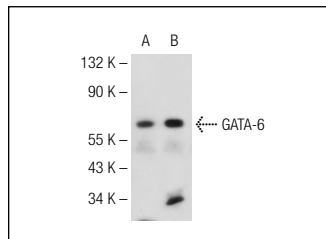
GATA-6 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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 (C-20): sc-7244. Western blot analysis of GATA-6 expression in HeLa (A) and PC-3 (B) nuclear extracts.

## SELECT PRODUCT CITATIONS

1. Silverman, E., et al. 1999. CCAAT enhancer-binding protein  $\beta$  and GATA-4 binding regions within the promoter of the steroidogenic acute regulatory protein (StAR) gene are required for transcription in rat ovarian cells. *J. Biol. Chem.* 274: 17987-17996.
2. Brewer, A., et al. 1999. The human and mouse GATA-6 genes utilize two promoters and two initiation codons. *J. Biol. Chem.* 274: 38004-38016.
3. Zhang, Y., et al. 2007. GATA and Nkx factors synergistically regulate tissue-specific gene expression and development *in vivo*. *Development* 134: 189-198.
4. Zhou, B., et al. 2008. GATA-6 mediates transcriptional activation of aquaporin-5 through interactions with Sp1. *Am. J. Physiol., Cell Physiol.* 295: C1141-C1150.
5. Leclerc, G.M., et al. 2008. Specific GATA-binding elements in the GnRH promoter are required for gene expression pulse activity: role of GATA-4 and GATA-5 in this intermittent process. *Neuroendocrinology* 88: 1-16.
6. Majalahti, T., et al. 2009. Characterization of promoter elements required for cardiac chamber-specific expression. *Mol. Cell. Endocrinol.* 307: 50-56.
7. Taniguchi, H., et al. 2009. The expression of the nuclear receptors NR5A1 and NR5A2 and transcription factor GATA6 correlates with steroidogenic gene expression in the bovine corpus luteum. *Mol. Reprod. Dev.* 76: 873-880.
8. Von Salisch, S., et al. 2010. Gata4 and Sp1 regulate expression of the erythropoietin receptor in cardiomyocytes. *J. Cell. Mol. Med.* 15: 1963-1972.
9. Jonckheere, N., et al. 2012. GATA-4/-6 and HNF-1/-4 families of transcription factors control the transcriptional regulation of the murine Muc5ac mucin during stomach development and in epithelial cancer cells. *Biochim. Biophys. Acta* 1819: 869-876.

## RESEARCH USE

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