SANTA CRUZ BIOTECHNOLOGY, INC.

# GATA-6 (N-18): sc-7245

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 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-7245 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-7245 X, 200 µg/0.1 ml.

## APPLICATIONS

GATA-6 (N-18) 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 (N-18) is also recommended for detection of GATA-6 in additional species, including canine, bovine and porcine.

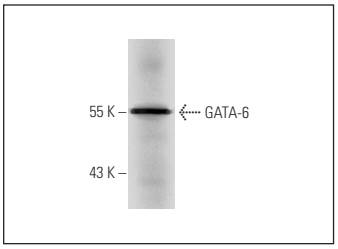
Suitable for use as control antibody for GATA-6 siRNA (h): sc-37907, GATA-6 siRNA (m): sc-37908, GATA-6 shRNA Plasmid (h): sc-37907-SH, GATA-6 shRNA Plasmid (m): sc-37908-SH, GATA-6 shRNA (h) Lentiviral Particles: sc-37907-V, GATA-6 shRNA (m) and Lentiviral Particles: sc-37908-V.

GATA-6 (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

## 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 (N-18): sc-7245. Western blot analysis of GATA-6 expression in human heart tissue extract.

## SELECT PRODUCT CITATIONS


1. Oesterreicher, T.J., et al. 2004. Rapid induction of GATA transcription factors in developing mouse intestine following glucocorticoid administration. Am. J. Physiol. Gastrointest. Liver Physiol. 286: G947-G953.
2. LaVoie, H.A., et al. 2004. Concerted regulation of the porcine steroidogenic acute regulatory protein gene promoter activity by follicle-stimulating hormone and Insulin-like growth factor I in granulosa cells involves GATA-4 and CCAAT/enhancer binding protein β. Endocrinology 145: 3122-3134.
3. 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.
4. Jonckheere, N., et al. 2011. The mouse Muc5b mucin gene is transcriptionally regulated by thyroid transcription factor-1 (TTF-1) and GATA-6 transcription factors. FEBS J. 278: 282-294.
5. 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.
6. Bennett, J., et al. 2012. Loss of GATA-6 and GATA-4 in granulosa cells blocks folliculogenesis, ovulation, and follicle stimulating hormone receptor expression leading to female infertility. Endocrinology 153: 2474-2485.
7. 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.

## PROTOCOLS

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