SANTA CRUZ BIOTECHNOLOGY, INC.

# GATA-5 (M-20): sc-7280

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-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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-7280 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-7280 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GATA-5 (M-20) 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-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

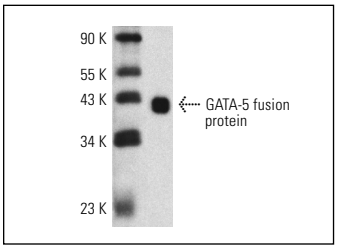
Molecular Weight of GATA-5: 45 kDa.

Positive Controls: mouse embryo extract: sc-364239.

## STORAGE

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

## DATA




GATA-5 (M-20): sc-7280. Western blot analysis of mouse recombinant GATA-5 fusion protein.

## SELECT PRODUCT CITATIONS


1. Hautala, N., et al. 2001. Pressure overload increases GATA-4 binding activity via endothelin-1. Circulation 103: 730-735.
2. Pikkarainen, S., et al. 2003. GATA-4 is a nuclear mediator of mechanical stretch-activated hypertrophic program. J. Biol. Chem. 278: 23807-23816.
3. 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.
4. van Wering, H.M., et al. 2004. Complex regulation of the lactase-phlorizin hydrolase promoter by GATA-4. Am. J. Physiol. Gastrointest. Liver Physiol. 287: G899-G909.
5. Bosse, T., et al. 2006. Gata4 is essential for the maintenance of jejunal-ileal identities in the adult mouse small intestine. Mol. Cell. Biol. 26: 9060-9070.
6. Majalahti, T., et al. 2007. Cardiac BNP gene activation by angiotensin II *in vivo*. Mol. Cell. Endocrinol. 273: 59-67.
7. 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.
8. Majalahti, T., et al. 2009. Characterization of promoter elements required for cardiac chamber-specific expression. Mol. Cell. Endocrinol. 307: 50-56.


## RESEARCH USE

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