

GATA-2/3 (C-20): sc-1235



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: GATA2 (human) mapping to 3q21.3, GATA3 (human) mapping to 10p14; Gata2 (mouse) mapping to 6 D1, Gata3 (mouse) mapping to 2 A1.

SOURCE

GATA-2/3 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GATA-2 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-1235 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-1235 X, 200 µg/0.1 ml.

APPLICATIONS

GATA-2/3 (C-20) is recommended for detection of GATA-2 and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GATA-2/3 (C-20) is also recommended for detection of GATA-2 and GATA-3 in additional species, including equine, canine, bovine, porcine and avian.

GATA-2/3 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

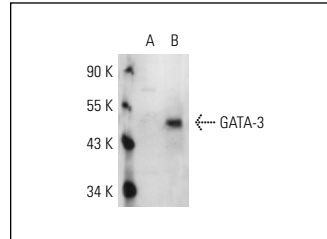
Molecular Weight of GATA-2/3: 50 kDa.

Positive Controls: GATA-3 (h2): 293 Lysate: sc-110482 or MCP-5 whole cell lysate.

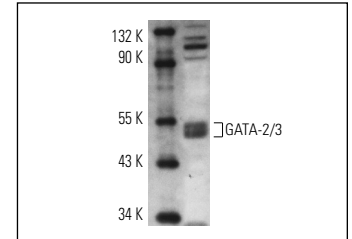
STORAGE

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

DATA



GATA-2/3 (C-20): sc-1235. Western blot analysis of GATA-3 expression in non-transfected: sc-110760 (A) and human GATA-3 transfected: sc-110482 (B) 293 whole cell lysates.



GATA-2/3 (C-20): sc-1235. Western blot analysis of GATA-2/3 expression in MCP-5 whole cell lysates.

SELECT PRODUCT CITATIONS

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- Minegishi, N., et al. 2003. Expression and domain-specific function of GATA-2 during differentiation of the hematopoietic precursor cells in midgestation mouse embryos. *Blood* 102: 896-905.
- Neumann, P., et al. 2004. TNF α induces a decrease in eNOS promoter activity. *Am. J. Physiol. Lung Cell Mol. Physiol.* 286: 452-459.
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RESEARCH USE

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