

# GATA-6 (3H3-H6-H11): sc-517554

## 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 in 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. Both 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.

## REFERENCES

1. Ko, L.J., et al. 1991. Murine and human T-lymphocyte GATA-3 factors mediate transcription through a *cis*-regulatory element within the human T-cell receptor delta gene enhancer. *Mol. Cell. Biol.* 11: 2778-2784.
2. Dorfman, D.M., et al. 1992. Human transcription factor GATA-2. Evidence for regulation of preproendothelin-1 gene expression in endothelial cells. *J. Biol. Chem.* 267: 1279-1285.
3. Ko, L.J., et al. 1993. DNA-binding specificities of the GATA transcription factor family. *Mol. Cell. Biol.* 13: 4011-4022.
4. Laverriere, A.C., et al. 1994. GATA-4/5/6, a subfamily of three transcription factors transcribed in developing heart and gut. *J. Biol. Chem.* 269: 23177-23184.
5. Suzuki, E., et al. 1996. The human GATA-6 gene: structure, chromosomal location, and regulation of expression by tissue-specific and mitogen-responsive signals. *Genomics* 38: 283-290.
6. Lepore, J.J., et al. 2006. GATA-6 regulates semaphorin 3C and is required in cardiac neural crest for cardiovascular morphogenesis. *J. Clin. Invest.* 116: 929-939.
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## CHROMOSOMAL LOCATION

Genetic locus: GATA6 (human) mapping to 18q11.2.

## SOURCE

GATA-6 (3H3-H6-H11) is a mouse monoclonal antibody raised against recombinant GATA-6 of human origin.

## PRODUCT

Each vial contains 100 µg IgG kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and 1% glycerol.

## APPLICATIONS

GATA-6 (3H3-H6-H11) is recommended for detection of GATA-6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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

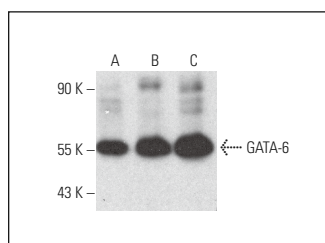
Molecular Weight of GATA-6: 56 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, PC-3 nuclear extract: sc-2152 or MCF7 nuclear extract: sc-2149.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



GATA-6 (3H3-H6-H11): sc-517554. Western blot analysis of GATA-6 expression in HeLa (A), PC-3 (B) and MCF7 (C) nuclear extracts. Detection reagent used: m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM.

## SELECT PRODUCT CITATIONS

1. Burgers, L.D., et al. 2024. (Homo-)harringtonine prevents endothelial inflammation through IRF-1 dependent downregulation of VCAM1 mRNA expression and inhibition of cell adhesion molecule protein biosynthesis. *Biomed. Pharmacother.* 176: 116907.

## STORAGE

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

## RESEARCH USE

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