

GATA-2 (H-6): sc-515178

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; Gata2 (mouse) mapping to 6 D1.

SOURCE

GATA-2 (H-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 263-287 within an internal region of GATA-2 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain 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-515178 X, 200 µg/0.1 ml.

GATA-2 (H-6) is available conjugated to agarose (sc-515178 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515178 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-515178 PE), fluorescein (sc-515178 FITC) or Alexa Fluor® 488 (sc-515178 AF488) or Alexa Fluor® 647 (sc-515178 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-515178 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

PROTOCOLS

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

APPLICATIONS

GATA-2 (H-6) is recommended for detection of GATA-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

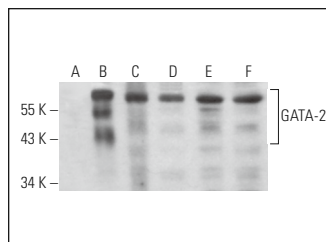
Suitable for use as control antibody for GATA-2 siRNA (h): sc-37228, GATA-2 siRNA (m): sc-37229, GATA-2 shRNA Plasmid (h): sc-37228-SH, GATA-2 shRNA Plasmid (m): sc-37229-SH, GATA-2 shRNA (h) Lentiviral Particles: sc-37228-V and GATA-2 shRNA (m) Lentiviral Particles: sc-37229-V.

GATA-2 (H-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

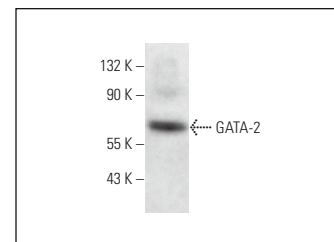
Molecular Weight of GATA-2: 50 kDa.

Positive Controls: GATA-2 (h): 293T Lysate: sc-176459, Hep G2 cell lysate: sc-2227 or MOLT-4 cell lysate: sc-2233.

DATA



GATA-2 (H-6): sc-515178. Western blot analysis of GATA-2 expression in non-transfected 293T: sc-117752 (A), human GATA-2 transfected 293T: sc-176459 (B), NTERA-2 cl.D1 (C), K-562 (D) and MOLT-4 (E) whole cell lysates and HEL 92.1.7 nuclear extract (F).



GATA-2 (H-6): sc-515178. Western blot analysis of GATA-2 expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

- Yu, L., et al. 2017. Reducing inflammatory cytokine production from renal collecting duct cells by inhibiting GATA2 ameliorates acute kidney injury. *Mol. Cell. Biol.* 37: e00211-17.
- Chen, S., et al. 2020. Hepatitis B virus X protein (HBx) promotes ST2 expression by GATA2 in liver cells. *Mol. Immunol.* 123: 32-39.
- Arisan, E.D., et al. 2021. MiR-21 is required for the epithelial-mesenchymal transition in MDA-MB-231 breast cancer cells. *Int. J. Mol. Sci.* 22: 1557.
- Loh, C.H., et al. 2021. Loss of PRC2 subunits primes lineage choice during exit of pluripotency. *Nat. Commun.* 12: 6985.
- Azeem, W., et al. 2022. Proteasome-mediated regulation of GATA2 expression and androgen receptor transcription in benign prostate epithelial cells. *Biomedicines* 10: 473.

RESEARCH USE

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