

p-GATA-4 (Ser 262): sc-32823

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 δ 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.

CHROMOSOMAL LOCATION

Genetic locus: GATA4 (human) mapping to 8p23.1; Gata4 (mouse) mapping to 14 D1.

SOURCE

p-GATA-4 (Ser 262) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 262 phosphorylated GATA-4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32823 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

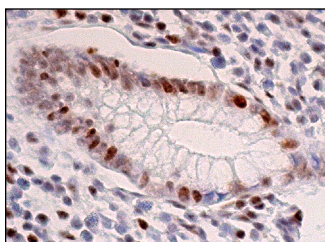
p-GATA-4 (Ser 262) is recommended for detection of Ser 262 phosphorylated GATA-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-GATA-4 (Ser 262) is also recommended for detection of correspondingly phosphorylated GATA-4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GATA-4 siRNA (h): sc-35455, GATA-4 siRNA (m): sc-35454, GATA-4 shRNA Plasmid (h): sc-35455-SH, GATA-4 shRNA Plasmid (m): sc-35454-SH, GATA-4 shRNA (h) Lentiviral Particles: sc-35455-V and GATA-4 shRNA (m) Lentiviral Particles: sc-35454-V.

Molecular Weight of p-GATA-4: 45 kDa.

DATA



p-GATA-4 (Ser 262): sc-32823. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing nuclear staining of glandular and lymphoid cells.

SELECT PRODUCT CITATIONS

1. Glenn, D.J., et al. 2009. Atrial natriuretic peptide suppresses endothelin gene expression and proliferation in cardiac fibroblasts through a GATA4-dependent mechanism. *Cardiovasc. Res.* 84: 209-217.
2. Mohamed, I.A., et al. 2015. Na⁺/H⁺ exchanger isoform 1-induced osteopontin expression facilitates cardiomyocyte hypertrophy. *PLoS ONE* 10: e0123318.

PROTOCOLS

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

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Try **p-GATA-4 (H-4): sc-377543**, our highly recommended monoclonal alternative to p-GATA-4 (Ser 262).