

HoxB9 (A-21): sc-133671

BACKGROUND

The Hox proteins play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. The mammalian Hox gene complex consists of 39 genes that are located on 4 linkage groups, which are dispersed over 4 chromosomes. Hox genes that occupy the same relative position along the 5' to 3' coordinate (trans-paralogous genes) are more similar in sequence and expression pattern than adjacent Hox genes on the same chromosome. In mice, the HoxB cluster contains HoxB1 to HoxB9 and HoxB13, which are transcribed in the same direction. HoxB9 associates with the transcriptional cofactors BTG1 and BTG2, which enhance HoxB9 transcription. Alterations in HoxB9 expression, as with other Hox family member, has been implicated in leukemia.

REFERENCES

- Ohnishi, K., et al. 1998. Modulation of HoxB6 and HoxB9 genes expression in human leukemia cell lines during myelomonocytic differentiation. *Leuk. Lymphoma* 31: 599-608.
- Chen, F., et al. 1999. Paralogous mouse Hox genes, HoxA9, HoxB9, and HoxD9, function together to control development of the mammary gland in response to pregnancy. *Proc. Natl. Acad. Sci. USA* 96: 541-546.

CHROMOSOMAL LOCATION

Genetic locus: HOXB9 (human) mapping to 17q21.32.

SOURCE

HoxB9 (A-21) is an affinity purified rabbit polyclonal antibody raised against synthetic HoxB9 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

HoxB9 (A-21) is recommended for detection of HoxB9 of 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), 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).

Suitable for use as control antibody for HoxB9 siRNA (h): sc-45669, HoxB9 shRNA Plasmid (h): sc-45669-SH and HoxB9 shRNA (h) Lentiviral Particles: sc-45669-V.

Molecular Weight (predicted) of HoxB9: 28 kDa.

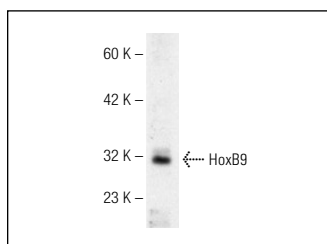
Molecular Weight (observed) of HoxB9: 32 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

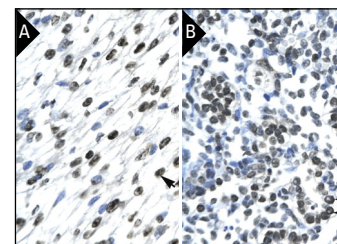
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



HoxB9 (A-21): sc-133671. Western blot analysis of HoxB9 expression in Hep G2 whole cell lysate.



HoxB9 (A-21): sc-133671. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human heart tissue (A) and human lung tissue (B) showing nuclear localization.

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.

PROTOCOLS

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



Try **HoxB9 (H-8): sc-398500** or **HoxB9 (45.9): sc-130377**, our highly recommended monoclonal alternatives to HoxB9 (A-21).