

HoxB9 (45.9): sc-130377

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

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- 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.
- Calvo, R., et al. 2000. Altered Hox and Wnt-7a expression in human lung cancer. *Proc. Natl. Acad. Sci. USA* 97: 12776-12781.
- Medina-Martinez, O., et al. 2000. A large targeted deletion of HoxB1-HoxB9 produces a series of single-segment anterior homeotic transformations. *Dev. Biol.* 222: 71-83.
- Prevot, D., et al. 2000. The leukemia-associated protein BTG1 and the p53-regulated protein BTG2 interact with the homeoprotein HoxB9 and enhance its transcriptional activation. *J. Biol. Chem.* 275: 147-153.
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CHROMOSOMAL LOCATION

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

SOURCE

HoxB9 (45.9) is a mouse monoclonal antibody raised against recombinant HoxB9 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

HoxB9 (45.9) is recommended for detection of HoxB9 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 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.

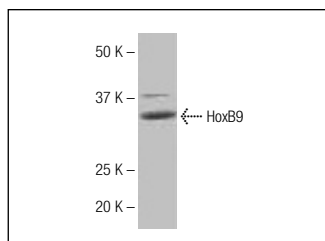
Molecular Weight (observed) of HoxB9: 32 kDa.

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

RECOMMENDED 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, 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).

DATA



HoxB9 (45.9): sc-130377. Western blot analysis of HoxB9 expression in Hep G2 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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