

# HoxA5 (h2): 293T Lysate: sc-173687

## BACKGROUND

HoxA5 (previously identified as Hox-1.3) is a transcriptional regulator of multiple target genes, including p53 and the progesterone receptor. It is a potent transactivator of p53 and may affect the response of breast cancer cells to DNA damage. In primary breast carcinomas, loss of p53 expression is coupled with loss of HoxA5 expression, suggesting that the loss of HoxA5 expression is important in tumorigenesis. HoxA5 is dynamically expressed during gut development and organogenesis of the respiratory tract, and is continuously expressed from the neonatal period into adult stages in cerebellar Purkinje cells. Expression of HoxA5 is necessary for the region-specific differentiation of the endoderm and differentiation of the myeloid pathway. HoxA5 is also essential for correct specification of the cervical and upper thoracic region of the skeleton and for proper patterning of the embryo.

## REFERENCES

1. Aubin, J., et al. 1998. Transcriptional interferences at the HoxA4/HoxA5 locus: importance of correct Hoxa5 expression for the proper specification of the axial skeleton. *Dev. Dyn.* 212: 141-156.
2. Sanlioglu, S., et al. 1998. Regulation of Purkinje cell-specific promoter by homeodomain proteins: repression by engrailed-2 vs. synergistic activation by Hoxa5 and Hoxb7. *J. Neurobiol.* 36: 559-571.
3. Aubin, J., et al. 1999. Loss of HoxA5 gene function in mice perturbs intestinal maturation. *Am. J. Physiol.* 277: C965-C973.
4. Crooks, G.M., et al. 1999. Constitutive HoxA5 expression inhibits erythropoiesis and increases myelopoiesis from human hematopoietic progenitors. *Blood* 94: 519-528.
5. Larochelle, C., et al. 1999. Multiple *cis*-acting regulatory regions are required for restricted spatio-temporal HoxA5 gene expression. *Dev. Dyn.* 214: 127-140.

## CHROMOSOMAL LOCATION

Genetic locus: HOXA5 (human) mapping to 7p15.2.

## PRODUCT

HoxA5 (h2): 293T Lysate represents a lysate of human HoxA5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

HoxA5 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive HoxA5 antibodies. Recommended use: 10-20 µl per lane.

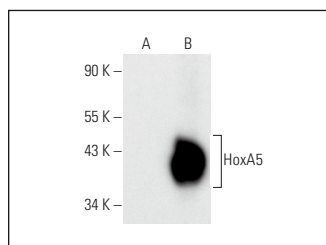
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HoxA5 (C-11): sc-365784 is recommended as a positive control antibody for Western Blot analysis of enhanced human HoxA5 expression in HoxA5 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

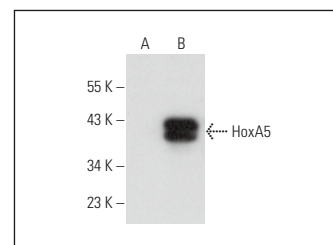
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



HoxA5 (C-11): sc-365784. Western blot analysis of HoxA5 expression in non-transfected: sc-117752 (A) and human HoxA5 transfected: sc-173687 (B) 293T whole cell lysates.



HoxA5 (C-12): sc-515385. Western blot analysis of HoxA5 expression in non-transfected: sc-117752 (A) and human HoxA5 transfected: sc-173687 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.