

# HoxA5 (C-12): sc-515385

## 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. Laroche, 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; Hoxa5 (mouse) mapping to 6 B3.

## SOURCE

HoxA5 (C-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 127-145 within an internal region of HoxA5 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-515385 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-515385 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## RESEARCH USE

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

## APPLICATIONS

HoxA5 (C-12) is recommended for detection of HoxA5 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 HoxA5 siRNA (h): sc-38678, HoxA5 siRNA (m): sc-38679, HoxA5 shRNA Plasmid (h): sc-38678-SH, HoxA5 shRNA Plasmid (m): sc-38679-SH, HoxA5 shRNA (h) Lentiviral Particles: sc-38678-V and HoxA5 shRNA (m) Lentiviral Particles: sc-38679-V.

HoxA5 (C-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of HoxA5: 30 kDa.

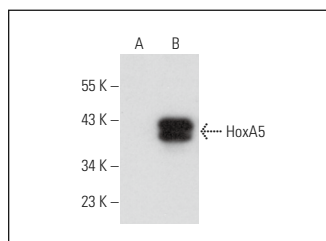
Molecular Weight (observed) of HoxA5: 43/55 kDa.

Positive Controls: HoxA5 (h2): 293T Lysate: sc-173687.

## 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



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.

## 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](http://www.scbt.com) for detailed protocols and support products.