

HoxA5 (A-16): sc-23130

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: 965-973.
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.
6. Nowling, T., et al. 1999. HoxA5 gene regulation: A gradient of binding activity to a brachial spinal cord element. *Dev. Biol.* 208: 134-146.
7. Raman, V., et al. 2000. Compromised HoxA5 function can limit p53 expression in human breast tumours. *Nature* 405: 974-978.
8. Raman, V., et al. 2000. HoxA5 regulates expression of the progesterone receptor. *J. Biol. Chem.* 275: 26551-26555.

CHROMOSOMAL LOCATION

Genetic locus: HOXA5 (human) mapping to 7p15.2; Hoxa5 (mouse) mapping to 6 B3.

SOURCE

HoxA5 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxA5 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG 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-23130 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-23130 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HoxA5 (A-16) is recommended for detection of HoxA5 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HoxA5 (A-16) is also recommended for detection of HoxA5 in additional species, including equine and porcine.

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.

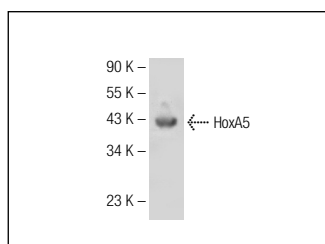
HoxA5 (A-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of HoxA5: 30 kDa.

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

Positive Controls: SK-N-SH cell lysate: sc-2410.

DATA



HoxA5 (A-16): sc-23130. Western blot analysis of HoxA5 expression in SK-N-SH whole cell lysate.

RESEARCH USE

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



Try **HoxA5 (C-11): sc-365784** or **HoxA5 (C-12): sc-515385**, our highly recommended monoclonal alternatives to HoxA5 (A-16).