

HoxA11 (h): 293T Lysate: sc-115833

BACKGROUND

HOX genes play a fundamental role in the development of the vertebrate central nervous system, heart, axial skeleton, limbs, gut, urogenital tract and external genitalia. These genes are important for morphogenesis in multi-cellular organisms; they encode a highly conserved family of transcription factors and specify the embryonic body pattern by providing cells with specific positional identities on the anterior-posterior axis. The homeobox gene HOXA11, also designated homeobox 11 (HOX11), belongs to the AbdB homeobox family. HoxA11 is necessary for fertility in females as it is a regulator of the cyclic development of the adult endometrium and embryonic uterine development. The expression of HoxA11 increases drastically during the mid-luteal stage of the menstrual cycle, which is necessary for implantation of the blastocyst.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 142958. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Wong, K.H., et al. 2003. HoxA11 regulates stromal cell death and proliferation during neonatal uterine development. *Mol. Endocrinol.* 18: 184-193.
3. Wang, L.F., et al. 2004. Expression of HoxA11 gene in human endometrium. *Am. J. Obstet. Gynecol.* 191: 767-772.
4. Lynch, V.J., et al. 2004. Adaptive evolution of HoxA11 and HoxA13 at the origin of the uterus in mammals. *Proc. Biol. Sci.* 271: 2201-2207.
5. Speleman, F., et al. 2005. A new recurrent inversion, inv(7)(p15q34), leads to transcriptional activation of HoxA10 and HoxA11 in a subset of T-cell acute lymphoblastic leukemias. *Leukemia* 19: 358-366.
6. Eun Kwon, H. and Taylor, H.S. 2005. The role of HOX genes in human implantation. *Ann. N.Y. Acad. Sci.* 1034: 1-18.
7. Cheng, W., et al. 2005. Lineage infidelity of epithelial ovarian cancers is controlled by HOX genes that specify regional identity in the reproductive tract. *Nat. Med.* 11: 531-537.

CHROMOSOMAL LOCATION

Genetic locus: HOXA11 (human) mapping to 7p15.2.

PRODUCT

HoxA11 (h): 293T Lysate represents a lysate of human HoxA11 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

HoxA11 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive HoxA11 antibodies. Recommended use: 10-20 µl per lane.

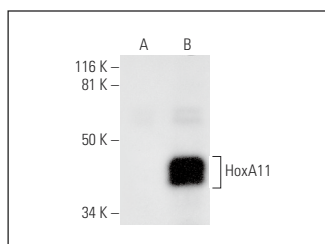
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HoxA11 (B-11): sc-393440 is recommended as a positive control antibody for Western Blot analysis of enhanced human HoxA11 expression in HoxA11 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

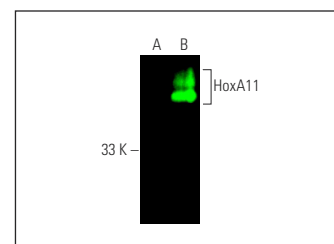
RECOMMENDED SUPPORT REAGENTS

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



HoxA11 (B-11): sc-393440. Western blot analysis of HoxA11 expression in non-transfected: sc-117752 (A) and human HoxA11 transfected: sc-115833 (B) 293T whole cell lysates.



HoxA11 (B-11) Alexa Fluor® 680: sc-393440 AF680. Direct near-infrared western blot analysis of HoxA11 expression in non-transfected: sc-117752 (A) and human HoxA11 transfected: sc-115833 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.

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.

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.