SANTA CRUZ BIOTECHNOLOGY, INC.

HoxA10 (m): 293T Lysate: sc-120881

BACKGROUND

The Hox homeobox genes encode proteins that are transcriptional regulators with an established role in embryonic development. The HoxA10 gene is related to the Abdominal B (AbdB) homeobox subfamily of genes and is expressed in both the developing genitourinary tract and in the adult uterus. HoxA10 expression increases during the midsecretory phase of the menstrual cycle, which corresponds with increased levels of circulating progesterone, as evidenced by Northern blot analysis. Furthermore, HoxA10 expression increases in a concentration-dependent manner with progesterone stimulation in cultured endometrial cells and is blocked by the progesterone receptor antagonist RU486. In addition, HoxA10 is differentially expressed in the myometrium throughout the menstrual cycle, both *in vivo* and *in vitro,* with decreased expression coinciding with increased progesterone levels. In contrast with a control group, female patients with documented endometriosis do not exhibit a mid-luteal increase in uterine Hox gene expression, which may contribute to the pathology of the disease.

REFERENCES

1. Acampora, D., et al. 1989. The human Hox gene family. Nucleic Acids Res. 17: 10385-10402.
2. Satokata, I., et al. 1995. Sexually dimorphic sterility phenotypes in HoxA10-deficient mice. Nature 374: 460-463.
3. Taylor, H.S., et al. 1998. HoxA10 is expressed in response to sex steroids at the time of implantation in the human endometrium. J. Clin. Invest. 101: 1379-1384.
4. Ma, L., et al. 1998. Abdominal B (AbdB) HoxA genes: regulation in adult uterus by estrogen and progesterone and repression in mullerian duct by the synthetic estrogen diethylstilbestrol (DES). Dev. Biol. 197: 141-154.
5. Taylor, H.S., et al. 1999. Hox gene expression is altered in the endometrium of women with endometriosis. Hum. Reprod. 14: 1328-1331.
6. Cermik, D., et al. 2001. HoxA10 expression is repressed by progesterone in the myometrium: differential tissue-specific regulation of Hox gene expression in the reproductive tract. J. Clin. Endocrinol. Metab. 86: 3387-3392.

CHROMOSOMAL LOCATION

Genetic locus: Hoxa10 (mouse) mapping to 6 B3.

PRODUCT

HoxA10 (m): 293T Lysate represents a lysate of mouse HoxA10 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.

PROTOCOLS

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

APPLICATIONS

HoxA10 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HoxA10 antibodies. Recommended use: 10-20 µl per lane.

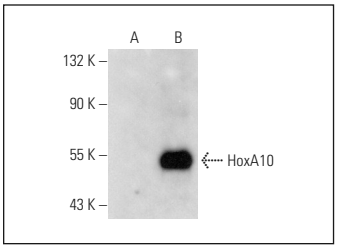
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HoxA10 (F-4): sc-271954 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HoxA10 expression in HoxA10 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



HoxA10 (F-4): sc-271954. Western blot analysis of HoxA10 expression in non-transfected: sc-117752 (**A**) and mouse HoxA10 transfected: sc-120881 (**B**) 293T whole cell lysates.

RESEARCH USE

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