

HoxA10 (A-20): sc-17159

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.

CHROMOSOMAL LOCATION

Genetic locus: HOXA10 (human) mapping to 7p15.2; Hoxa10 (mouse) mapping to 6 B3.

SOURCE

HoxA10 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxA10 of human origin.

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-17159 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-17159 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HoxA10 (A-20) is recommended for detection of HoxA10 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).

Suitable for use as control antibody for HoxA10 siRNA (h): sc-38684, HoxA10 siRNA (m): sc-38685, HoxA10 shRNA Plasmid (h): sc-38684-SH, HoxA10 shRNA Plasmid (m): sc-38685-SH, HoxA10 shRNA (h) Lentiviral Particles: sc-38684-V and HoxA10 shRNA (m) Lentiviral Particles: sc-38685-V.

HoxA10 (A-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

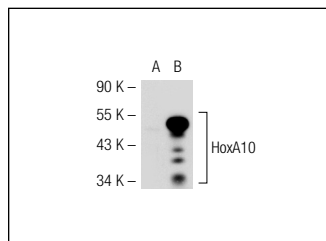
Molecular Weight of HoxA10 isoforms 1/2: 42/11 kDa.

Positive Controls: HoxA10 (m): 293T Lysate: sc-120881, NIH/3T3 whole cell lysate: sc-2210 or Jurkat whole cell lysate: sc-2204.

STORAGE

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

DATA



HoxA10 (A-20): sc-17159. Western blot analysis of HoxA10 expression in non-transfected: sc-117752 (A) and mouse HoxA10 transfected: sc-120881 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sarno, J.L., et al. 2005. HoxA10, Pbx2, and Meis1 protein expression in the human endometrium: formation of multimeric complexes on HoxA10 target genes. *J. Clin. Endocrinol. Metab.* 90: 522-528.
2. Fei, X., et al. 2005. Methoxychlor disrupts uterine Hoxa10 gene expression. *Endocrinology* 146: 3445-3451.
3. Lu, Y., et al. 2010. Reduced expression and concomitant promoter hypermethylation of HOXA10 in endometrium from women wearing intrauterine devices. *Fertil. Steril.* 94: 1583-1588.
4. Seo, W.S., et al. 2011. Expression of endometrial protein markers in infertile women and the association with subsequent *in vitro* fertilization outcome. *Fertil. Steril.* 95: 2707-2710.
5. Zhong, G., et al. 2011. Expression of HOXA10 in endometrial hyperplasia and adenocarcinoma and regulation by sex hormones *in vitro*. *Int. J. Gynecol. Cancer* 21: 800-805.
6. Varayoud, J., et al. 2011. Neonatal exposure to bisphenol A alters rat uterine implantation-associated gene expression and reduces the number of implantation sites. *Endocrinology* 152: 1101-1111.
7. Kulak, J., et al. 2011. Treatment with bazedoxifene, a selective estrogen receptor modulator, causes regression of endometriosis in a mouse model. *Endocrinology* 152: 3226-3232.

RESEARCH USE

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

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Try **HoxA10 (E-11): sc-271428** or **HoxA10 (C-2): sc-271953**, our highly recommended monoclonal alternatives to HoxA10 (A-20).