

HoxA10 (N-20): sc-17158

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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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-17158 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-17158 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HoxA10 (N-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). HoxA10 (N-20) is also recommended for detection of HoxA10 in additional species, including canine.

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

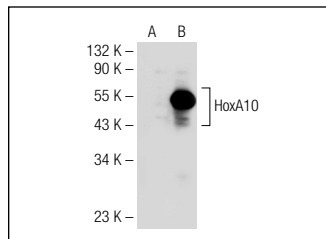
Molecular Weight of HoxA10 isoforms 1/2: 42/11 kDa.

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

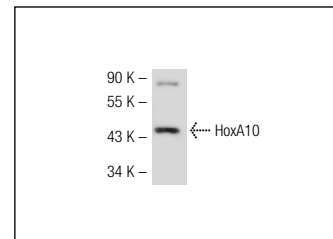
STORAGE

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

DATA



HoxA10 (N-20): sc-17158. Western blot analysis of HoxA10 expression in non-transfected: sc-117752 (A) and mouse HoxA10 transfected: sc-120881 (B) 293T whole cell lysates.



HoxA10 (N-20): sc-17158. Western blot analysis of HoxA10 expression in NIH/3T3 whole cell lysate.

SELECT PRODUCT CITATIONS

- Hassan, M.Q., et al. 2007. HoxA10 controls osteoblastogenesis by directly activating bone regulatory and phenotypic genes. *Mol. Cell. Biol.* 27: 3337-3352.
- Gordon, J.A., et al. 2010. Pbx1 represses osteoblastogenesis by blocking Hoxa10-mediated recruitment of chromatin remodeling factors. *Mol. Cell. Biol.* 30: 3531-3541.
- Signorile, P.G., et al. 2010. Pre-natal exposure of mice to bisphenol A elicits an endometriosis-like phenotype in female offspring. *Gen. Comp. Endocrinol.* 168: 318-325.
- Fischer, C.P., et al. 2011. HOXA10 expression is decreased in endometrium of women with adenomyosis. *Fertil. Steril.* 95: 1133-1136.
- Gordon, J.A., et al. 2011. Epigenetic regulation of early osteogenesis and mineralized tissue formation by a HOXA10-PBX1-associated complex. *Cells Tissues Organs* 194: 146-150.
- Quéré, R., et al. 2011. High levels of the adhesion molecule CD44 on leukemic cells generate acute myeloid leukemia relapse after withdrawal of the initial transforming event. *Leukemia* 25: 515-526.
- Zhou, Y., et al. 2011. Cigarette smoke increases progesterone receptor and homeobox A10 expression in human endometrium and endometrial cells: a potential role in the decreased prevalence of endometrial pathology in smokers. *Biol. Reprod.* 84: 1242-1247.

RESEARCH USE

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



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