

# HoxA10 (E-11): sc-271428

## 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 (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 39-74 near the N-terminus of HoxA10 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain 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-271428 X, 200 µg/0.1 ml.

HoxA10 (E-11) is available conjugated to agarose (sc-271428 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271428 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271428 PE), fluorescein (sc-271428 FITC), Alexa Fluor® 488 (sc-271428 AF488), Alexa Fluor® 546 (sc-271428 AF546), Alexa Fluor® 594 (sc-271428 AF594) or Alexa Fluor® 647 (sc-271428 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271428 AF680) or Alexa Fluor® 790 (sc-271428 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271428 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

HoxA10 (E-11) is recommended for detection of HoxA10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (E-11) is also recommended for detection of HoxA10 in additional species, including canine.

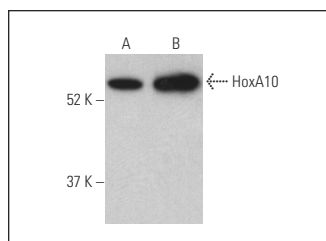
Suitable for use as control antibody for HoxA10 siRNA (h): sc-38684, HoxA10 siRNA (m): sc-38685, HoxA10 shRNA Plasmid (h): sc-38684-SH, HoxA10 shRNA Plasmid (m): sc-38685-SH, HoxA10 shRNA (h) Lentiviral Particles: sc-38684-V and HoxA10 shRNA (m) Lentiviral Particles: sc-38685-V.

HoxA10 (E-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

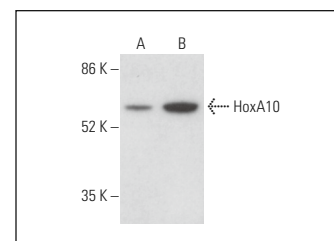
Molecular Weight of HoxA10 isoforms 1/2: 42/11 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 or HCT-8 cell lysate: sc-24675.

## DATA



HoxA10 (E-11) HRP: sc-271428 HRP. Direct western blot analysis of HoxA10 expression in Jurkat (A) and HCT-8 (B) whole cell lysates.



HoxA10 (E-11): sc-271428. Western blot analysis of HoxA10 expression in HEK293 (A) and HCT-8 (B) whole cell lysates. Detection reagent used: m-IgGx BP-HRP: sc-516102.

## SELECT PRODUCT CITATIONS

- Zhu, Y., et al. 2016. HoxA10, EMX2 and TENM1 expression in the mid-secretory endometrium of infertile women with a Müllerian duct anomaly. *Reprod. Biomed. Online* 32: 388-393.
- Lu, T., et al. 2021. Circular RNA circCSNK1G3 induces HoxA10 signaling and promotes the growth and metastasis of lung adenocarcinoma cells through hsa-miR-143-3p sponging. *Cell. Oncol.* 44: 297-310.
- Cai, X., et al. 2022. Association between gestational trophoblastic disease (GTD) history and clinical outcomes in *in vitro* fertilization/intracytoplasmic sperm injection (IVF/ICSI) cycles. *Reprod. Biol. Endocrinol.* 20: 27.
- Christofides, A., et al. 2023. SHP-2 and PD-1-SHP-2 signaling regulate myeloid cell differentiation and antitumor responses. *Nat. Immunol.* 24: 55-68.

## RESEARCH USE

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