

HoxA11 (K-16): sc-48541

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 multicellular organisms, as 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 recurrence 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.

CHROMOSOMAL LOCATION

Genetic locus: HOXA11 (human) mapping to 7p15.2; HoxA11 (mouse) mapping to 6 B3.

SOURCE

HoxA11 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxA11 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.

Blocking peptide available for competition studies, sc-48541 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

HoxA11 (K-16) is recommended for detection of HoxA11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HoxA11 (K-16) is also recommended for detection of HoxA11 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HoxA11 siRNA (h): sc-60802, HoxA11 siRNA (m): sc-60803, HoxA11 shRNA Plasmid (h): sc-60802-SH, HoxA11 shRNA Plasmid (m): sc-60803-SH, HoxA11 shRNA (h) Lentiviral Particles: sc-60802-V and HoxA11 shRNA (m) Lentiviral Particles: sc-60803-V.

HoxA11 (K-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of HoxA11: 34 kDa.

Molecular Weight (observed) of HoxA11: 29/37-42 kDa.

Positive Controls: mouse prostate extract: sc-364249 or Jurkat nuclear extract: sc-2132.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

PROTOCOLS

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