SANTA CRUZ BIOTECHNOLOGY, INC.

HoxC10 (E-20): sc-33002

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Hox proteins play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. Hox proteins are involved in controlling axial patterning, leukemias and hereditary malformations. HoxC10 oscillates in abundance during the cell cycle, being targeted for degradation early in mitosis by the ubiquitin-dependent proteasome pathway. HoxC10 is a homeoprotein with the potential to influence mitotic progression, and might provide a link between developmental regulation and cell cycle control.

REFERENCES

1. Gabellini, D., et al. 2003. Early mitotic degradation of the homeoprotein HoxC10 is potentially linked to cell cycle progression. EMBO. J. 22: 3715-3724.
2. Juan, A.H., et al. 2003. Enhancer timing of Hox gene expression: deletion of the endogenous HoxC8 early enhancer. Development 130: 4823-4834.
3. Miller, G.J., et al. 2003. Aberrant HoxC expression accompanies the malignant phenotype in human prostate. Cancer Res. 63: 5879-5888.
4. Nicolas, S., et al. 2003. The spatial restrictions of 5'HoxC genes expression are maintained in adult newt spinal cord. Biol. Cell 95: 589-594.
5. Akbas, G.E., et al. 2004. HOXC and HOXD gene expression in human endometrium: lack of redundancy with HOXA paralogs. Biol. Reprod. 70: 39-45.
6. Chen, K.N., et al. 2005. Expression of 11 HOX genes is deregulated in esophageal squamous cell carcinoma. Clin. Cancer Res. 11: 1044-1049.
7. Gong, L.G., et al. 2005. Analysis of single nucleotide polymorphisms and haplotypes in HOXC gene cluster within susceptible region 12q13 of simple congenital heart disease. Zhonghua Yi Xue Yi Chuan Xue Za Zhi 22: 497-501.
8. Ramachandran, S., et al. 2005. Loss of HoxC6 expression induces apoptosis in prostate cancer cells. Oncogene 24: 188-198.
9. Singleton, D.W., et al. 2006. Gene expression profiling reveals novel regulation by bisphenol-A in estrogen receptor-α-positive human cells. Environ. Res. 100: 86-92.

CHROMOSOMAL LOCATION

Genetic locus: HOXC10 (human) mapping to 12q13.13; Hoxc10 (mouse) mapping to 15 F3.

SOURCE

HoxC10 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HoxC10 of human origin.

STORAGE

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

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-33002 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-33002 X, 200 µg/0.1 ml.

APPLICATIONS

HoxC10 (E-20) is recommended for detection of HoxC10 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).

HoxC10 (E-20) is also recommended for detection of HoxC10 in additional species, including canine and bovine.

Suitable for use as control antibody for HoxC10 siRNA (h): sc-44810, HoxC10 siRNA (m): sc-44811, HoxC10 shRNA Plasmid (h): sc-44810-SH, HoxC10 shRNA Plasmid (m): sc-44811-SH, HoxC10 shRNA (h) Lentiviral Particles: sc-44810-V and HoxC10 shRNA (m) Lentiviral Particles: sc-44811-V.

HoxC10 (E-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxC10: 38 kDa.

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.

RESEARCH USE

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

PROTOCOLS

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