SANTA CRUZ BIOTECHNOLOGY, INC.

HoxC6 (N-13): sc-46135

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. The mammalian Hox gene complex consists of 39 genes that are located on four linkage groups, which are dispersed over four chromosomes. Hox genes that occupy the same relative position along the 5' to 3' coordinate *(trans*-paralogous genes) are more similar in sequence and expression pattern than adjacent Hox genes on the same chromosome. HoxC6 sequence-specific transcription factor is part of a developmental regulatory system that provides cells with specific positional identities on the anterior-posterior axis. HoxC6 may be a novel potential therapeutic target for prostate cancer.

REFERENCES

1. Juan, A.H., et al. 2003. Enhancer timing of Hox gene expression: deletion of the endogenous HoxC8 early enhancer. Development 130: 4823-4834.
2. Miller, G.J., et al. 2003. Aberrant HoxC expression accompanies the malignant phenotype in human prostate. Cancer Res. 63: 5879-5888.
3. Chen, K.N., et al. 2005. Expression of 11 Hox genes is deregulated in esophageal squamous cell carcinoma. Clin. Cancer Res. 11: 1044-1049.
4. 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.
5. Ramachandran, S., et al. 2005. Loss of HoxC6 expression induces apoptosis in prostate cancer cells. Oncogene 24: 188-198.
6. Singleton, D.W., et al. 2005. 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: HOXC6 (human) mapping to 12q13.13; Hoxc6 (mouse) mapping to 15 F3.

SOURCE

HoxC6 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HoxC6 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-46135 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-46135 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

HoxC6 (N-13) is recommended for detection of HoxC6 isoform 1 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).

HoxC6 (N-13) is also recommended for detection of HoxC6 isoform 1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HoxC6 siRNA (h): sc-45673, HoxC6 siRNA (m): sc-45674, HoxC6 shRNA Plasmid (h): sc-45673-SH, HoxC6 shRNA Plasmid (m): sc-45674-SH, HoxC6 shRNA (h) Lentiviral Particles: sc-45673-V and HoxC6 shRNA (m) Lentiviral Particles: sc-45674-V.

HoxC6 (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HoxC6 isoforms: 27/18 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.

SELECT PRODUCT CITATIONS

1. Karumbayaram, S., et al. 2009. Directed differentiation of human-induced pluripotent stem cells generates active motor neurons. Stem Cells 27: 806-811.
2. Jung, H., et al. 2010. Global control of motor neuron topography mediated by the repressive actions of a single hox gene. Neuron 67: 781-796.
3. Mazzoni, E.O., et al. 2013. Saltatory remodeling of Hox chromatin in response to rostrocaudal patterning signals. Nat. Neurosci. 16: 1191-1198.

STORAGE

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