SANTA CRUZ BIOTECHNOLOGY, INC.

HoxD10 (H-80): sc-66926

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. Homeobox protein HoxD10, also designated Hox-4D or Hox-4E, belongs to the Abd-B homeobox family of proteins. HoxD10 is a nuclear protein primarily expressed in the adult male and female urogenitcal tracts but also expressed in developing limb buds during development. Defects in the gene encoding for the HoxD10 protein cause congentital vertical talus (CVT), more commonly known as rocker-bottom foot deformity. CVT is characterized by a dislocation of the talonavicular joint but is usually accompanied by other congenital deformities.

REFERENCES

1. Zappavigna, V., et al. 1991. HOX4 genes encode transcription factors with potential auto- and cross-regulatory capacities. EMBO J. 10: 4177-4187.
2. Redline, R.W., et al. 1992. Human HOX4E: a gene strongly expressed in the adult male and female urogenital tracts. Genomics 13: 425-430.
3. Gabellini, D., et al. 2003. Early mitotic degradation of the homeoprotein HoxC10 is potentially linked to cell cycle progression. EMBO J. 22: 3715-3724.
4. Juan, A.H., et al. 2003. Enhancer timing of Hox gene expression: deletion of the endogenous Hoxc8 early enhancer. Development 130: 4823-4834.
5. Miller, G.J., et al. 2003. Aberrant HOXC expression accompanies the malignant phenotype in human prostate. Cancer Res. 63: 5879-5888.

CHROMOSOMAL LOCATION

Genetic locus: HOXD10 (human) mapping to 2q31.1; Hoxd10 (mouse) mapping to 2 C3.

SOURCE

HoxD10 (H-80) is a rabbit polyclonal antibody raised against amino acids 21-100 mapping near the N-terminus of HoxD10 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-66926 X, 200 µg/0.1 ml.

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

HoxD10 (H-80) is recommended for detection of HoxD10 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HoxD10 (H-80) is also recommended for detection of HoxD10 in additional species, including equine, canine, bovine and porcine.

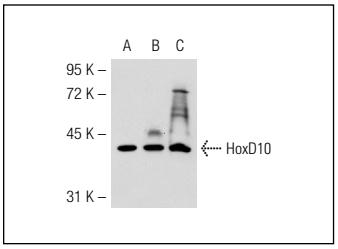
Suitable for use as control antibody for HoxD10 siRNA (h): sc-44814, HoxD10 siRNA (m): sc-44815, HoxD10 shRNA Plasmid (h): sc-44814-SH, HoxD10 shRNA Plasmid (m): sc-44815-SH, HoxD10 shRNA (h) Lentiviral Particles: sc-44814-V and HoxD10 shRNA (m) Lentiviral Particles: sc-44815-V.

HoxD10 (H-80) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

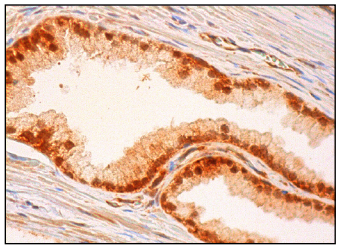
Molecular Weight of HoxD10: 40 kDa.

Positive Controls: HoxD10 (m2): 293T Lysate: sc-126972 or ECV304 cell lysate: sc-2269.

DATA



HoxD10 (H-80): sc-66926. Western blot analysis of HoxD10 expression in non-transfected 293T: sc-117752 (**A**), mouse HoxD10 transfected 293T: sc-126972 (**B**) and ECV304 (**C**) whole cell lysates.



HoxD10 (H-80): sc-66926. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Baffa, R., et al. 2009. MicroRNA expression profiling of human metastatic cancers identifies cancer gene targets. J. Pathol. 219: 214-221.
2. Fassan, M., et al. 2009. MicroRNA expression profiling of male breast cancer. Breast Cancer Res. 11: R58.

PROTOCOLS

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