

HoxD10 (m2): 293T Lysate: sc-126972

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, leukaemias 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 urogenital tracts, but also expressed in developing limb buds during development. Defects in the gene encoding for the HoxD10 protein cause congenital 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.
6. 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.
7. 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.
8. Chen, K.N., et al. 2005. Expression of 11 Hox genes is deregulated in esophageal squamous cell carcinoma. *Clin. Cancer Res.* 11: 1044-1049.
9. 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.

CHROMOSOMAL LOCATION

Genetic locus: Hoxd10 (mouse) mapping to 2 C3.

PRODUCT

HoxD10 (m2): 293T Lysate represents a lysate of mouse HoxD10 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

HoxD10 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HoxD10 antibodies. Recommended use: 10-20 µl per lane.

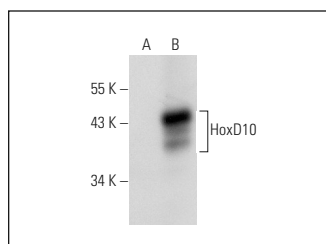
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HoxD10 (G-3): sc-166235 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HoxD10 expression in HoxD10 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

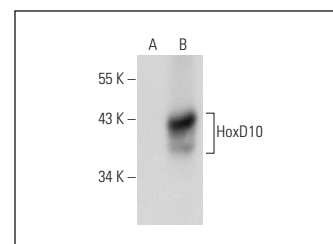
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



HoxD10 (G-3): sc-166235. Western blot analysis of HoxD10 expression in non-transfected: sc-117752 (A) and mouse HoxD10 transfected: sc-126972 (B) 293T whole cell lysates.



HoxD10 (B-10): sc-166233. Western blot analysis of HoxD10 expression in non-transfected: sc-117752 (A) and mouse HoxD10 transfected: sc-126972 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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