

HoxC10 (3F2): sc-517164

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.

SOURCE

HoxC10 (3F2) is a mouse monoclonal antibody raised against amino acids 158-257 representing partial length HoxC10 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HoxC10 (3F2) is recommended for detection of HoxC10 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

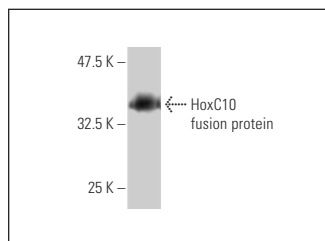
Suitable for use as control antibody for HoxC10 siRNA (h): sc-44810, HoxC10 shRNA Plasmid (h): sc-44810-SH and HoxC10 shRNA (h) Lentiviral Particles: sc-44810-V.

Molecular Weight of HoxC10: 38 kDa.

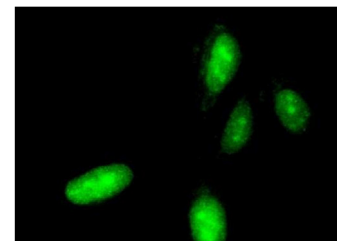
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HoxC10 (3F2): sc-517164. Western blot analysis of human recombinant HoxC10 fusion protein.



HoxC10 (3F2): sc-517164. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and nucleolar localization.

SELECT PRODUCT CITATIONS

1. Ma, K., et al. 2020. Low HOXC10 expression in liver cancer regulates proliferation via a mechanism involving miR-221 and the MAPK signaling pathway. *Oncol. Lett.* 20: 127.

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.

PROTOCOLS

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