

HoxC4 (h): 293T Lysate: sc-116126

BACKGROUND

Homeobox (Hox) genes, which share a highly conserved 183 bp sequence, encode proteins capable of binding to specific DNA sequences and functioning as transcription factors. During embryogenesis, HOX genes play a critical role in the spatial and temporal differentiation of cells. HoxC4, a sequence-specific transcription factor, belongs to the Antp Hox family and localizes to the nucleus. It functions as a part of a developmental regulatory system, providing cells with specific positional identities on the anterior-posterior axis. HoxC4 expression levels increase with differentiation of lymphoid cells, suggesting its role in the molecular regulation of hematopoiesis. HoxC4 is also expressed in differentiated keratinocytes.

REFERENCES

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3. Bijl, J., et al. 1996. Expression of HoxC4, HoxC5, and HoxC6 in human lymphoid and benign and malignant lymphoid tissue. *Blood* 87: 1737-1745.
4. Bijl, J.J., et al. 1997. HoxC4, HoxC5, and HoxC6 expression in primary cutaneous lymphoid lesions. High expression of HoxC5 in anaplastic large-cell lymphomas. *Am. J. Pathol.* 151: 1067-1074.
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6. Bijl, J.J., et al. 1998. Differentiation and cell-type-restricted expression of HoxC4, HoxC5 and HoxC6 in myeloid leukemias and normal myeloid cells. *Leukemia* 12: 1724-1732.
7. Daga, A., et al. 2000. The retroviral transduction of HoxC4 into human CD34⁺ cells induces an *in vitro* expansion of clonogenic and early progenitors. *Exp. Hematol.* 28: 569-574.
8. Kim, E.C., et al. 2004. The HoxC4 homeodomain protein mediates activation of the immunoglobulin heavy chain 3' hs1,2 enhancer in human B cells. Relevance to class switch DNA recombination. *J. Biol. Chem.* 279: 42258-42269.
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CHROMOSOMAL LOCATION

Genetic locus: HOXC4 (human) mapping to 12q13.13.

PRODUCT

HoxC4 (h): 293T Lysate represents a lysate of human HoxC4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

HoxC4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive HoxC4 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.

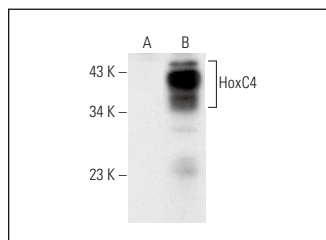
HoxC4 (G-12): sc-398460 is recommended as a positive control antibody for Western Blot analysis of enhanced human HoxC4 expression in HoxC4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

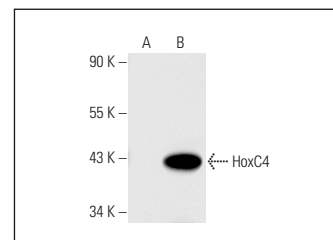
To ensure optimal results, the following support reagents are recommended:

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



HoxC4 (G-12): sc-398460. Western blot analysis of HoxC4 expression in non-transfected: sc-117752 (A) and human HoxC4 transfected: sc-116126 (B) 293T whole cell lysates.



HoxC4 (RR-Y): sc-81965. Western blot analysis of HoxC4 expression in non-transfected: sc-117752 (A) and human HoxC4 transfected: sc-116126 (B) 293T whole cell lysates.

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.