

HoxC4 (G-12): sc-398460

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

- Rieger, E., et al. 1994. Expression of the homeobox gene HoxC4 in keratinocytes of normal skin and epithelial skin tumors is correlated with differentiation. *J. Invest. Dermatol.* 103: 341-346.
- Meazza, R., et al. 1995. Expression of HoxC4 homeoprotein in the nucleus of activated human lymphocytes. *Blood* 85: 2084-2090.
- Bijl, J., et al. 1996. Expression of HoxC4, HoxC5, and HoxC6 in human lymphoid and benign and malignant lymphoid tissue. *Blood* 87: 1737-1745.
- 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.
- Bijl, J.J., et al. 1997. HoxC4, HoxC5, and HoxC6 expression in non-Hodgkin's lymphoma: preferential expression of the HoxC5 gene in primary cutaneous anaplastic T cell and oro-gastrointestinal tract mucosa-associated B cell lymphomas. *Blood* 90: 4116-4125.

CHROMOSOMAL LOCATION

Genetic locus: HOXC4 (human) mapping to 12q13.13; Hoxc4 (mouse) mapping to 15 F3.

SOURCE

HoxC4 (G-12) is a mouse monoclonal antibody raised against amino acids 59-134 mapping within an internal region of HoxC4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HoxC4 (G-12) is available conjugated to agarose (sc-398460 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398460 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398460 PE), fluorescein (sc-398460 FITC), Alexa Fluor® 488 (sc-398460 AF488), Alexa Fluor® 546 (sc-398460 AF546), Alexa Fluor® 594 (sc-398460 AF594) or Alexa Fluor® 647 (sc-398460 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398460 AF680) or Alexa Fluor® 790 (sc-398460 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

HoxC4 (G-12) is recommended for detection of HoxC4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HoxC4 siRNA (h): sc-60804, HoxC4 siRNA (m): sc-60805, HoxC4 shRNA Plasmid (h): sc-60804-SH, HoxC4 shRNA Plasmid (m): sc-60805-SH, HoxC4 shRNA (h) Lentiviral Particles: sc-60804-V and HoxC4 shRNA (m) Lentiviral Particles: sc-60805-V.

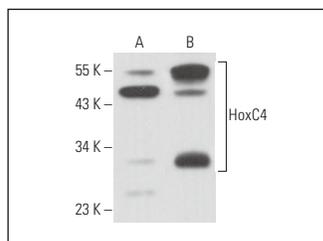
Molecular Weight of HoxC4: 30 kDa.

Positive Controls: HoxC4 (h): 293T Lysate: sc-116126, ZR-75-1 cell lysate: sc-2241 or SH-SY5Y cell lysate: sc-3812.

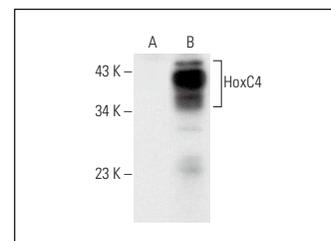
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



HoxC4 (G-12): sc-398460. Western blot analysis of HoxC4 expression in ZR-75-1 (A) and SH-SY5Y (B) whole cell lysates.



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.

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.