

HLX1 (S-15): sc-55124

BACKGROUND

HLX1 (homeobox protein HB24) is a 488 amino acid protein encoded by the human gene HLX1. HLX1 belongs to the H2.0 homeobox family and contains one homeobox DNA-binding domain. HLX1 is considered a diverged human homeodomain-containing protein known to be expressed in hematopoietic progenitors and activated lymphocytes. HLX1 is a transcription factor required for TBX21/T-bet-dependent maturation of Th1 cells as well as maintenance of Th1-specific gene expression. It is also involved in embryogenesis and hematopoiesis. Overexpression of HLX1 will cause a marked increase in activated T cells/thymocytes and interleukin-2 receptor expression. Overexpression will also impair the normal development of CD4⁺ T cells and will prevent the thymus from undergoing normal involution.

REFERENCES

1. Deguchi, Y., Moroney, J.F., Wilson, G.L., Fox, C.H., Winter, H.S. and Kehrl, J.H. 1991. Cloning of a human homeobox gene that resembles a diverged *Drosophila* homeobox gene and is expressed in activated lymphocytes. *New Biol.* 3: 353-363.
2. Hollington, P., Neufing, P., Kalionis, B., Waring, P., Bentel, J., Wattchow, D. and Tilley, W.D. 2004. Expression and localization of homeodomain proteins DLX4, HB9 and HB24 in malignant and benign human colorectal tissues. *Anticancer Res.* 24: 955-962.
3. Murthi, P., Doherty, V., Said, J., Donath, S., Brennecke, S.P. and Kalionis, B. 2006. Homeobox gene HLX1 expression is decreased in idiopathic human fetal growth restriction. *Am. J. Pathol.* 168: 511-518.
4. Murthi, P., So, M., Gude, N.M., Doherty, V.L., Brennecke, S.P. and Kalionis, B. 2006. Homeobox genes are differentially expressed in macrovascular human umbilical vein endothelial cells and microvascular placental endo-thelial cells. *Placenta* 28: 219-223.

CHROMOSOMAL LOCATION

Genetic locus: HLX1 (human) mapping to 1q41; Hlx1 (mouse) mapping to 1 H5.

SOURCE

HLX1 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HLX1 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.

Blocking peptide available for competition studies, sc-55124 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

HLX1 (S-15) is recommended for detection of HLX1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for HLX1 siRNA (h): sc-62472, HLX1 siRNA (m): sc-62473, HLX1 shRNA Plasmid (h): sc-62472-SH, HLX1 shRNA Plasmid (m): sc-62473-SH, HLX1 shRNA (h) Lentiviral Particles: sc-62472-V and HLX1 shRNA (m) Lentiviral Particles: sc-62473-V.

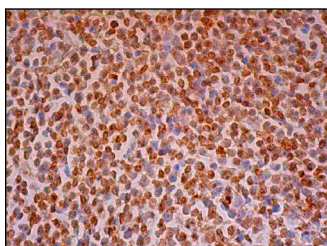
Molecular Weight of HLX1: 51 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or Raji whole cell lysate: sc-364236.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



HLX1 (S-15): sc-55124. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nuclear staining of cells in germinal centers and cells in non-germinal centers.

PROTOCOLS

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

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Try **HLX1 (1B9): sc-293328**, our highly recommended monoclonal alternative to HLX1 (S-15).