SANTA CRUZ BIOTECHNOLOGY, INC.

Hox11 (C-18): sc-880

BACKGROUND

The Hox proteins play a role in patterns of embryonic development and cellular differentiation by regulating downstream target genes. The Hox11 gene, termed an orphan homeobox gene, as it is located outside of the four mammalian Hox clusters, is a DNA-binding nuclear transcription factor. The human Hox11 gene maps to chromosome 10q24.31 and has been implicated in the chromosomal translocation t(7;10)(q24;q11) that occurs in T cell acute lymphoblastic leukemia (T-ALL). The t(7:10) translocation occurs between the Hox11 gene and the T cell receptor (TCR) δ-chain gene and is a result of aberrant physiological recombinational events at the early stages of T cell development. The Hox11 gene is normally expressed in the splanchnic anlage arising from the splanchnic mesoderm. Homozygous Hox11-deficient mice have no spleen, while all other splanchnic derivatives develop normally. Spleen development starts and proceeds normally in Hox11-deficient mice to a specific stage of embryogenesis, when the spleen anlage becomes fully absorbed.

CHROMOSOMAL LOCATION

Genetic locus: TLX1 (human) mapping to 10q24.31; Tlx1 (mouse) mapping to 19 C3.

SOURCE

Hox11 (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Hox11 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-880 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-880 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Hox11 (C-18) is recommended for detection of Hox11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Hox11 (C-18) is also recommended for detection of Hox11 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Hox11 siRNA (h): sc-38700, Hox11 siRNA (m): sc-38701, Hox11 shRNA Plasmid (h): sc-38700-SH, Hox11 shRNA Plasmid (m): sc-38701-SH, Hox11 shRNA (h) Lentiviral Particles: sc-38700-V and Hox11 shRNA (m) Lentiviral Particles: sc-38701-V.

Hox11 (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

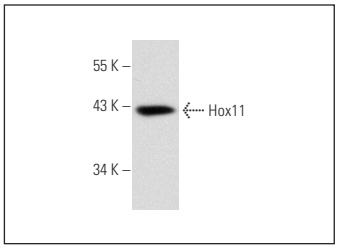
Molecular Weight of Hox11: 40 kDa.

Positive Controls: Sol8 nuclear extract: sc-2157.

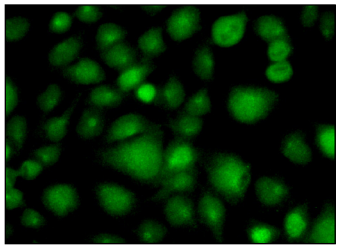
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Hox11 (C-18): sc-880. Western blot analysis of Hox11 expression in Sol8 nuclear extract.



Hox11 (C-18): sc-880. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear and cytoplasmic localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

SELECT PRODUCT CITATIONS

1. Greene, W.K., et al. 2002. Enforced expression of HOX11 is associated with an immature phenotype in J2E erythroid cells. Br. J. Haematol. 118: 909-917.
2. Brendolan, A., et al. 2005. A Pbx1-dependent genetic and transcriptional network regulates spleen ontogeny. Development 132: 3113-3126.
3. Riz, I., et al. 2005. G_1/S transcriptional networks modulated by the Hox11/TLX1 oncogene of T cell acute lymphoblastic leukemia. Oncogene 24: 5561-5575.
4. Riz, I., et al. 2009. Transcriptional activation by TLX1/Hox11 involves Gro/TLE corepressors. Biochem. Biophys. Res. Commun. 380: 361-365.
5. Riz, I., et al. 2009. Role of TLX1 in T-cell acute lymphoblastic leukaemia pathogenesis. Br. J. Haematol. 145: 140-143.
6. Zweier-Renn, L.A., et al. 2010. Hematopoietic immortalizing function of the NKL-subclass homeobox gene TLX1. Genes Chromosomes Cancer 49: 119-131.
7. Della Gatta, G., et al. 2012. Reverse engineering of TLX oncogenic transcriptional networks identifies RUNX1 as tumor suppressor in T-ALL. Nat. Med. 18: 436-440.

RESEARCH USE

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