

TLX3 (h): 293 Lysate: sc-173065

BACKGROUND

Members of the TLX homeobox gene family are expressed in the developing hindbrain; specifically, the TLX3 gene is expressed in the developing dorsal and ventral medulla oblongata. The TLX3 gene is required for formation of first-order relay visceral sensory neurons in the brainstem. Development of most nor-adrenergic centers is compromised in both TLX3- and Phox2b-deficient mice. The TLX3 and Phox2 proteins have independent functions in specifying the nor-adrenergic phenotype. TLX3-deficient newborn mice have a high rate of respiration, a decreased duration of inspiration and frequent apnea; they die shortly after birth from central respiratory failure. In both chick and mouse embryos, TLX3 expression occurs in two longitudinal stripes of postmitotic neurons in the developing hindbrain and spinal cord. Implicated in T-ALL (T cell acute lymphoblastic leukemia), the t(5;14)(q35;q32) translocation increases transcription of the TLX3 gene.

REFERENCES

1. Shirasawa, S., et al. 2000. Rnx deficiency results in congenital central hypoventilation. *Nat. Genet.* 24: 287-290.
2. Bernard, O.A., et al. 2001. A new recurrent and specific cryptic translocation, t(5;14)(q35;q32), is associated with expression of the Hox11L2 gene in T acute lymphoblastic leukemia. *Leukemia* 15: 1495-1504.
3. Cinti, R., et al. 2001. Assignment of the HOX11L2 gene to human chromosome band 5q35.1 and of its murine homolog to mouse chromosome bands 11A4-A5 by *in situ* hybridization. *Cytogenet. Cell Genet.* 92: 354-355.
4. Lee-Kirsch, M.A., et al. 2001. Assignment of the human homeobox 11-like 2 gene (HOX11L2) to chromosome 5q34 → q35 by radiation hybrid mapping. *Cytogenet. Cell Genet.* 92: 358.
5. Qia, N.Y., et al. 2001. Formation of brainstem (nor)adrenergic centers and first-order relay visceral sensory neurons is dependent on homeodomain protein Rnx/TLX3. *Genes Dev.* 15: 2533-2545.

CHROMOSOMAL LOCATION

Genetic locus: TLX3 (human) mapping to 5q35.1.

PRODUCT

TLX3 (h): 293 Lysate represents a lysate of human TLX3 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TLX3 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive TLX3 antibodies. Recommended use: 10-20 µl per lane.

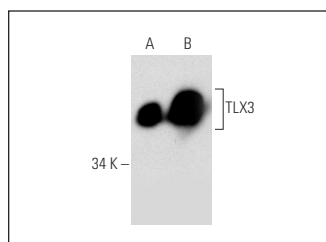
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

TLX3 (34-L): sc-81990 is recommended as a positive control antibody for Western Blot analysis of enhanced human TLX3 expression in TLX3 transfected 293 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



TLX3 (34-L): sc-81990. Western blot analysis of TLX3 expression in non-transfected: sc-110760 (A) and human TLX3 transfected: sc-173065 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.