

## TLX2 (D-13): sc-132469

### BACKGROUND

T cell leukemia homeobox protein 2 (TLX2), also known as homeobox protein Hox-11L1 (HOX11L1), neural crest homeobox protein (NCX) or ENX, is a 284 amino acid member of the TLX homeobox family. The mouse homolog, Tlx2, has been detected in dorsal-root ganglia, cranial and enteric-nerve ganglia, parasympathetic ganglia and adrenal glands in mouse embryos and in the adrenal glands, intestine and heart of adult mice. The expression pattern of TLX2, which is restricted to tissues derived from neural crest cells, suggests that it may play a role in the proliferation or differentiation of the enteric peripheral nervous system. TLX2, which is localized to the nucleus, is highly homologous to mouse Tlx2, and shares several critical domains, including an enhancer element in the promoter that is crucial for tissue-specific expression. Mutations in the gene encoding mouse Tlx2 lead to congenital anomalies closely resembling neuronal intestinal dysplasia in humans. Thus, TLX2 is thought to play a role in this disease, which is a rare condition characterized by hyperplasia of submucosal plexus with giant submucosal ganglia and increased acetylcholinesterase activity in nerve fiber around submucosal blood vessels.

### REFERENCES

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2. Hatano, M., Iitsuka, Y., Yamamoto, H., Dezawa, M., Yusa, S., Kohno, Y. and Tokuhisa, T. 1997. NCX, a HOX11 related gene, is expressed in a variety of tissues derived from neural crest cells. *Anat. Embryol.* 195: 419-425.
3. Hatano, M., Aoki, T., Dezawa, M., Yusa, S., Iitsuka, Y., Koseki, H., Taniguchi, M. and Tokuhisa, T. 1997. A novel pathogenesis of megacolon in NCX/HOX11L1 deficient mice. *J. Clin. Invest.* 100: 795-801.
4. Iitsuka, Y., Shimizu, H., Kang, M.M., Sasagawa, K., Sekiya, S., Tokuhisa, T. and Hatano, M. 1999. An enhancer element for expression of the NCX (ENX, HOX11L1) gene in neural crest-derived cells. *J. Biol. Chem.* 274: 24401-24407.
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### CHROMOSOMAL LOCATION

Genetic locus: TLX2 (human) mapping to 2p13.1; Tlx2 (mouse) mapping to 6 C3.

### SOURCE

TLX2 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TLX2 of mouse origin.

### STORAGE

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

### 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-132469 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-132469 X, 200 µg/0.1 ml.

### APPLICATIONS

TLX2 (D-13) is recommended for detection of TLX2 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); non cross-reactive with TLX3.

TLX2 (D-13) is also recommended for detection of TLX2 in additional species, including equine, canine, bovine and porcine.

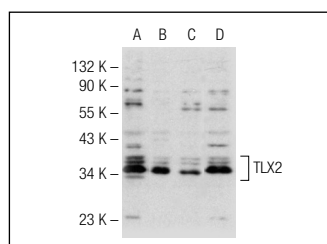
Suitable for use as control antibody for TLX2 siRNA (h): sc-94612, TLX2 siRNA (m): sc-154299, TLX2 shRNA Plasmid (h): sc-94612-SH, TLX2 shRNA Plasmid (m): sc-154299-SH, TLX2 shRNA (h) Lentiviral Particles: sc-94612-V and TLX2 shRNA (m) Lentiviral Particles: sc-154299-V.

TLX2 (D-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TLX2: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or Jurkat nuclear extract: sc-2132.

### DATA



TLX2 (D-13): sc-132469. Western blot analysis of TLX2 expression in Hep G2 (A) and Jurkat (B) nuclear extracts and ALL-SIL (C) and Jurkat (D) whole cell lysates.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.