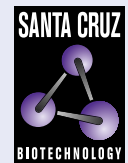


# TLX2 (D-12): sc-514077



The Power to Question

## 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

1. Dear, T.N., et al. 1993. The HOX11 gene encodes a DNA-binding nuclear transcription factor belonging to a distinct family of homeobox genes. *Proc. Natl. Acad. Sci. USA* 90: 4431-4435.
2. Hatano, M., et al. 1997. NCX, a HOX11 related gene, is expressed in a variety of tissues derived from neural crest cells. *Anat. Embryol.* 195: 419-425.

## CHROMOSOMAL LOCATION

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

## SOURCE

TLX2 (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-17 at the N-terminus of TLX2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain 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-514077 X, 200 µg/0.1 ml.

TLX2 (D-12) is available conjugated to agarose (sc-514077 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514077 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514077 PE), fluorescein (sc-514077 FITC), Alexa Fluor® 488 (sc-514077 AF488), Alexa Fluor® 546 (sc-514077 AF546), Alexa Fluor® 594 (sc-514077 AF594) or Alexa Fluor® 647 (sc-514077 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514077 AF680) or Alexa Fluor® 790 (sc-514077 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514077 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

TLX2 (D-12) is recommended for detection of TLX2 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 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-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

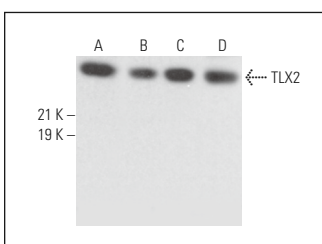
Molecular Weight of TLX2: 30 kDa.

Positive Controls: TLX2 (h): 293T Lysate: sc-369791, SH-SY5Y cell lysate: sc-3812 or SK-N-SH cell lysate: sc-2410.

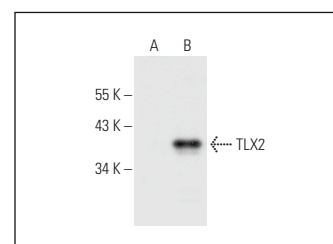
## RECOMMENDED SUPPORT REAGENTS

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



TLX2 (D-12): sc-514077. Western blot analysis of TLX2 expression in SH-SY5Y (A), SK-N-SH (B), Neuro-2A (C) and KNRK (D) whole cell lysates.



TLX2 (D-12): sc-514077. Western blot analysis of TLX2 expression in non-transfected: sc-117752 (A) and human TLX2 transfected: sc-369791 (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.

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