SANTA CRUZ BIOTECHNOLOGY, INC.

# TBX2 (V-16): sc-17879

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The Power to Question

## BACKGROUND

The T-box (TBX) motif is present in a family of genes whose structural features and expression patterns support their involvement in developmental gene regulation. The TBX gene family are largely conserved throughout metazoan evolution, and these genes code for putative transcription factors that share a uniquely defining DNA-binding domain. TBX genes are a family of developmental regulators with more than 20 members recently identified in invertebrates and vertebrates. Mutations in TBX genes are associated with the onset of several human diseases. Our understanding of functional mechanisms of TBX products has come mainly from the prototypical T/Brachyury, which is a transcription activator. The TBX genes constitute a family of transcriptional regulatory genes that are implicated in a variety of developmental processes ranging from the formation of germ layers to the organizational patterning of the central nervous system.

## REFERENCES


1. Law, D.J., Gebuhr, T., Garvey, N., Agulnik, S.I. and Silver, L.M. 1995. Identification, characterization, and localization to chromosome 17q21-22 of the human TBX2 homolog, member of a conserved developmental gene family. Mamm. Genome 6: 793-797.
2. Agulnik, S.I., Papaioannou, V.E. and Silver, L.M. 1998. Cloning, mapping, and expression analysis of TBX15, a new member of the T-box gene family. Genomics 51: 68-75.
3. Dheen, T., Sleptsova-Friedrich, I., Xu, Y., Clark, M., Lehrach, H., Gong, Z. and Korzh, V. 1999. Zebrafish TBX-C functions during formation of midline structures. Development 126: 2703-2713.
4. He, M.I., Wen, L., Campbell, C.E., Wu, J.Y. and Rao, Y. 1999. Transcription repression by Xenopus ET and its human ortholog TBX3, a gene involved in ulnar-mammary syndrome. Proc. Natl. Acad. Sci. USA 96: 10212-10217.
5. Ahn, D.G., Ruvinsky, I., Oates, A.C., Silver, L.M. and Ho, R.K. 2000. TBX20, a new vertebrate T-box gene expressed in the cranial motor neurons and developing cardiovascular structures in zebrafish. Mech. Dev. 95: 253-258.
6. Begemann, G. and Ingham, P.W. 2000. Developmental regulation of TBX5 in zebrafish embryogenesis. Mech. Dev. 90: 299-304.


## CHROMOSOMAL LOCATION

Genetic locus: TBX2 (human) mapping to 17q23.2; Tbx2 (mouse) mapping to 11 C.

## SOURCE

TBX2 (V-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TBX2 of human origin.

## 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.

## 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-17880 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-17880 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TBX2 (V-16) is recommended for detection of TBX2 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).

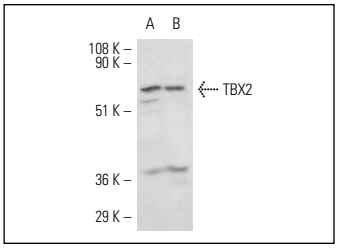
Suitable for use as control antibody for TBX2 siRNA (h): sc-38469, TBX2 siRNA (m): sc-38470, TBX2 shRNA Plasmid (h): sc-38469-SH, TBX2 shRNA Plasmid (m): sc-38470-SH, TBX2 shRNA (h) Lentiviral Particles: sc-38469-V and TBX2 shRNA (m) Lentiviral Particles: sc-38470-V.

TBX2 (V-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TBX2: 74 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or mouse placenta extract: sc-364247.

## DATA




TBX2 (V-16): sc-17879. Western blot analysis of TBX2 expression in HeLa (**A**) and MCF7 (**B**) nuclear extracts.

## PROTOCOLS

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