

TBX2 (C-17): sc-17880

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.

CHROMOSOMAL LOCATION

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

SOURCE

TBX2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TBX2 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-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 (C-17) 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).

TBX2 (C-17) is also recommended for detection of TBX2 in additional species, including canine, bovine and porcine.

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 (C-17) 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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Taneja, P., et al. 2010. Critical roles of DMP1 in human epidermal growth factor receptor 2/neu-Arf-p53 signaling and breast cancer development. *Cancer Res.* 70: 9084-9094.
2. Galibert, M.D. and Baron, Y. 2010. Identification of specific protein/E-box-containing DNA complexes: lessons from the ubiquitously expressed USF transcription factors of the β-HLH-LZ super family. *Methods Mol. Biol.* 647: 391-406.
3. Peres, J., et al. 2010. The highly homologous T-box transcription factors, TBX2 and TBX3, have distinct roles in the oncogenic process. *Genes Cancer* 1: 272-282.
4. Liu, F., et al. 2013. TBX2 expression is regulated by PAX3 in the melanocyte lineage. *Pigment Cell Melanoma Res.* 26: 67-77.
5. Schneider, M.A., et al. 2013. The transcription factors TBX2 and TBX3 interact with human papillomavirus 16 (HPV16) L2 and repress the long control region of HPVs. *J. Virol.* 87: 4461-4474.

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.

PROTOCOLS

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



Try **TBX2 (D-3): sc-514291**, our highly recommended monoclonal alternative to TBX2 (C-17).