

TBX3 (A-20): sc-17871

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: TBX3 (human) mapping to 12q24.21; Tbx3 (mouse) mapping to 5 F.

SOURCE

TBX3 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TBX3 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.

Blocking peptide available for competition studies, sc-17871 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-17871 X, 200 µg/0.1 ml.

APPLICATIONS

TBX3 (A-20) is recommended for detection of TBX3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TBX3 (A-20) is also recommended for detection of TBX3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TBX3 siRNA (h): sc-37018, TBX3 siRNA (m): sc-37019, TBX3 shRNA Plasmid (h): sc-37018-SH, TBX3 shRNA Plasmid (m): sc-37019-SH, TBX3 shRNA (h) Lentiviral Particles: sc-37018-V and TBX3 shRNA (m) Lentiviral Particles: sc-37019-V.

TBX3 (A-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

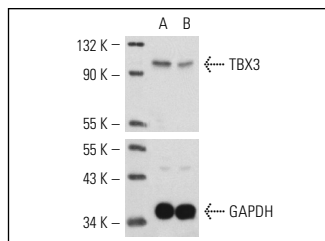
Molecular Weight of TBX3: 80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, IMR-32 cell lysate: sc-2409 or PC-3 nuclear extract: sc-2152.

RESEARCH USE

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

DATA



TBX3 siRNA (h): sc-37018. Western blot analysis of TBX3 expression in non-transfected control (A) and TBX3 siRNA transfected (B) HeLa cells. Blot probed with TBX3 (A-20): sc-17871. GAPDH (FL-335): sc-25778 used as specificity and loading control.

SELECT PRODUCT CITATIONS

- Boogerd, K.J., et al. 2008. Msx1 and Msx2 are functional interacting partners of T-box factors in the regulation of Connexin43. *Cardiovasc. Res.* 78: 485-493.
- Rodriguez, M., et al. 2008. TBX3 represses E-cadherin expression and enhances melanoma invasiveness. *Cancer Res.* 68: 7872-7881.
- Zhang, J.F., et al. 2011. Aqueous extracts of *Fructus Ligustri Lucidi* enhance the sensitivity of human colorectal carcinoma DLD-1 cells to doxorubicin-induced apoptosis via Tbx3 suppression. *Integr. Cancer Ther.* 10: 85-91.
- Boogerd, C.J., et al. 2011. Sox4 mediates Tbx3 transcriptional regulation of the gap junction protein Cx43. *Cell. Mol. Life Sci.* 68: 3949-3961.
- Rentschler, S., et al. 2012. Myocardial notch signaling reprograms cardiomyocytes to a conduction-like phenotype. *Circulation* 126: 1058-1066.
- van den Boogaard, M., et al. 2012. Genetic variation in T-box binding element functionally affects SCN5A/SCN10A enhancer. *J. Clin. Invest.* 122: 2519-2530.
- Sanchez-Ripoll, Y., et al. 2013. Glycogen synthase kinase-3 inhibition enhances translation of pluripotency-associated transcription factors to contribute to maintenance of mouse embryonic stem cell self-renewal. *PLoS ONE* 8: e60148.

STORAGE

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


 MONOS
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Try **TBX3 (A-6): sc-166623**, our highly recommended monoclonal alternative to TBX3 (A-20).