

TBX20 (F-16): sc-18485

BACKGROUND

Members of the T-box (Tbx) gene family share a conserved domain that codes for the T-box, a sequence involved in DNA-binding and protein dimerization. The Tbx gene family is largely conserved throughout metazoan evolution, and is implicated in a variety of developmental processes ranging from the formation of germ layers to the organizational patterning of the central nervous system. The T-box family member human TBX20 shares approximately 71% sequence identity with the T-box domain of the *Drosophila* H15 protein. The human TBX20 gene contains 6 exons spanning 22 kb of genomic DNA and encodes a deduced 297-amino acid protein, which is expressed in the fetal heart, eye and limb. During embryogenesis in the mouse, TBX20 is expressed in the developing heart, eye, ventral neural tube, and limbs, indicating a possible role in regulating development of these tissues.

REFERENCES

1. 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.
2. 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.
3. Begemann, G. and Ingham, P.W. 2000. Developmental regulation of Tbx5 in zebrafish embryogenesis. *Mech. Dev.* 90: 299-304.
4. 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.
5. Meins, M., Henderson, D.J., Bhattacharya, S.S. and Sowden, J.C. 2000. Characterization of the human TBX20 gene, a new member of the T-Box gene family closely related to the *Drosophila* H15 gene. *Genomics* 67: 317-322.
6. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606061. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: TBX20 (human) mapping to 7p14.2; Tbx20 (mouse) mapping to 9 A4.

SOURCE

TBX20 (F-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TBX20 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-18485 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-18485 X, 200 µg/0.1 ml.

APPLICATIONS

TBX20 (F-16) is recommended for detection of TBX20 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).

TBX20 (F-16) is also recommended for detection of TBX20 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TBX20 siRNA (m): sc-38484, TBX20 siRNA (h): sc-38483, TBX20 shRNA Plasmid (m): sc-38484-SH, TBX20 shRNA Plasmid (h): sc-38483-SH, TBX20 shRNA (m) Lentiviral Particles: sc-38484-V and TBX20 shRNA (h) Lentiviral Particles: sc-38483-V.

TBX20 (F-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TBX20: 33 kDa.

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) 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.

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.