

## TBX6 (M-17): sc-17888

### 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. In the mouse, TBX6 is involved in both the specification and patterning of the somites along the entire length of the embryo. Specifically, TBX6 is expressed in the primitive streak, tail bud and presomitic mesoderm, and is essential for the specification of posterior paraxial mesoderm. In the absence of TBX6, posterior somites are replaced by ectopic neural tubes.

### REFERENCES

1. Agulnik, S.I., et al. 1998. Cloning, mapping, and expression analysis of TBX15, a new member of the T-box gene family. *Genomics* 51: 68-75.
2. He, M.L., et al. 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., et al. 2000. Developmental regulation of TBX5 in zebrafish embryogenesis. *Mech. Dev.* 90: 299-304.
4. Ahn, D.G., et al. 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. Chapman, D.L., et al. 2003. Critical role for Tbx6 in mesoderm specification in the mouse embryo. *Mech. Dev.* 120: 837-847.
6. White, P.H., et al. 2005. Regulation of Tbx6 expression by Notch signaling. *Genesis* 42: 61-70.
7. White, P.H., et al. 2005. Dll1 is a downstream target of Tbx6 in the paraxial mesoderm. *Genesis* 42: 193-202.

### CHROMOSOMAL LOCATION

Genetic locus: Tbx6 (mouse) mapping to 7 F3.

### SOURCE

TBX6 (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TBX6 of mouse 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-17888 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-17888 X, 200 µg/0.1 ml.

### STORAGE

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

### APPLICATIONS

TBX6 (M-17) is recommended for detection of TBX6 of mouse and rat 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).

Suitable for use as control antibody for TBX6 siRNA (m): sc-38473, TBX6 shRNA Plasmid (m): sc-38473-SH and TBX6 shRNA (m) Lentiviral Particles: sc-38473-V.

TBX6 (M-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TBX6: 47 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.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.