SANTA CRUZ BIOTECHNOLOGY, INC.

TBX6 (U-23): sc-134063

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.I., 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 (human) mapping to 16p11.2; Tbx6 (mouse) mapping to 7 F3.

SOURCE

TBX6 (U-23) is an affinity purified rabbit polyclonal antibody raised against synthetic TBX6 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

TBX6 (U-23) is recommended for detection of TBX6 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), immunohistochemistry (including paraffin-embedded sections) (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 (h): sc-106773, TBX6 siRNA (m): sc-38473, TBX6 shRNA Plasmid (h): sc-106773-SH, TBX6 shRNA Plasmid (m): sc-38473-SH, TBX6 shRNA (h) Lentiviral Particles: sc-106773-V and TBX6 shRNA (m) Lentiviral Particles: sc-38473-V.

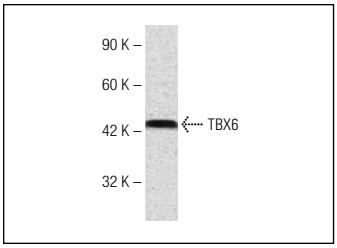
Molecular Weight of TBX6: 47 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



TBX6 (U-23): sc-134063. Western blot analysis of TBX6 expression in Hep G2 whole cell lysate.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **TBX6 (1D11): sc-517027**, our highly recommended monoclonal alternative to TBX6 (U-23).