

DMRTB1 (T-21): sc-101940

BACKGROUND

In humans, the DMRT genes encode a large family of transcription factors that are related to the *Drosophila* doublesex proteins. Expressed primarily in the gonads, the DMRT proteins contain cysteine-rich DNA-binding motifs and are thought to play an important role in sexual development. DMRTB1 (doublesex- and mab-3-related transcription factor B1) is a 342 amino acid protein that contains one DM DNA-binding domain and belongs to the DMRT family. Localized to the nucleus and expressed in the testis, DMRTB1 may participate in developmental processes and, via its DM domain, may bind to DNA and regulate transcription.

REFERENCES

1. Brunner, B., et al. 2001. Genomic organization and expression of the doublesex-related gene cluster in vertebrates and detection of putative regulatory regions for DMRT1. *Genomics* 77: 8-17.
2. Ottolenghi, C., et al. 2002. Novel paralogy relations among human chromosomes support a link between the phylogeny of doublesex-related genes and the evolution of sex determination. *Genomics* 79: 333-343.
3. Kim, S., et al. 2003. Sexually dimorphic expression of multiple doublesex-related genes in the embryonic mouse gonad. *Gene Expr. Patterns* 3: 77-82.
4. Shui, Y., et al. 2004. Cloning of four members of giant panda DMRT genes. *Yi Chuan Xue Bao* 31: 468-473.
5. Hong, C.S., et al. 2007. The function of DMRT genes in vertebrate development: it is not just about sex. *Dev. Biol.* 310: 1-9.
6. El-Mogharbel, N., et al. 2007. DMRT gene cluster analysis in the platypus: new insights into genomic organization and regulatory regions. *Genomics* 89: 10-21.
7. Matsushita, Y., et al. 2007. Expression of DMRT genes in the gonads of *Rana rugosa* during sex determination. *Zoolog. Sci.* 24: 95-99.

CHROMOSOMAL LOCATION

Genetic locus: DMRTB1 (human) mapping to 1p32.3.

SOURCE

DMRTB1 (T-21) is a purified rabbit polyclonal antibody raised against DMRTB1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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

DMRTB1 (T-21) is recommended for detection of DMRTB1 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DMRTB1 siRNA (h): sc-88525, DMRTB1 shRNA Plasmid (h): sc-88525-SH and DMRTB1 shRNA (h) Lentiviral Particles: sc-88525-V.

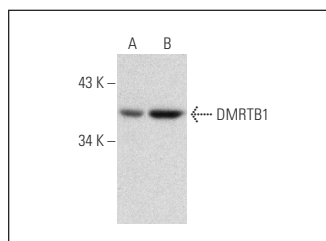
Molecular Weight of DMRTB1: 36 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa nuclear extract: sc-2120 or MCF7 nuclear extract: sc-2149.

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).

DATA



DMRTB1 (T-21): sc-101940. Western blot analysis of DMRTB1 expression in MCF7 (A) and HeLa (B) nuclear extracts.

RESEARCH USE

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