



DMRT1 (SS6): sc-101024

BACKGROUND

DMRT1 (doublesex- and mab-3-related transcription factor 1), also known as DMRT1 or DM domain expressed in testis protein 1, is a 373 amino acid protein that contains a highly conserved zinc finger-like DNA-binding motif (DM domain). The DMRT genes encode a large family of transcription factors that participate in the sexual development of vertebrates and invertebrates. In humans, DMRT1 is expressed only in testis and is transported to the nucleus by karyopherin β 1. DMRT1 is required for testis development and may be involved in the formation of the seminiferous tubules. The gene encoding DMRT1 exhibits a gonad-specific and sexually dimorphic expression pattern during embryogenesis in mammals and birds. Hemizyosity of the DMRT1 gene results in abnormal testicular development and XY feminization. DMRT1 is expressed as four isoforms due to alternative splicing.

REFERENCES

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- Lei, N., et al. 2007. Sex-specific differences in mouse DMRT1 expression are both cell type- and stage-dependent during gonad development. *Biol. Reprod.* 77: 466-475.
- Ying, M., et al. 2007. Nuclear import of human sexual regulator DMRT1 is mediated by importin- β . *Biochim. Biophys. Acta* 1773: 804-813.

CHROMOSOMAL LOCATION

Genetic locus: DMRT1 (human) mapping to 9p24.3.

SOURCE

DMRT1 (SS6) is a mouse monoclonal antibody raised against recombinant DMRT1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

DMRT1 (SS6) is recommended for detection of DMRT1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 DMRT1 siRNA (h): sc-92489, DMRT1 shRNA Plasmid (h): sc-92489-SH and DMRT1 shRNA (h) Lentiviral Particles: sc-92489-V.

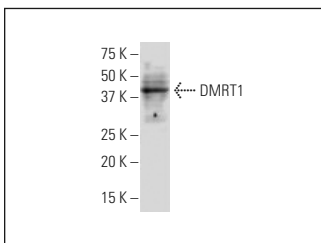
Molecular Weight of DMRT1: 39 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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



DMRT1 (SS6): sc-101024. Western blot analysis of DMRT1 expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

- Pratto, F., et al. 2021. Meiotic recombination mirrors patterns of germline replication in mice and humans. *Cell* 184: 4251-4267.e20.

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 for detailed protocols and support products.