

**Mouse Anti-DMRT1 [A9]: MC0404, MC0404RTU7**

**Intended Use:** For Research Use Only

**Description:** DMRT1 (doublesex- and MAB-3-related transcription factor 1), also known as DMT1 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  $\beta$ 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. Hemizygoty of the DMRT1 gene results in abnormal testicular development and XY feminization. DMRT1 is expressed as four isoforms due to alternative splicing.

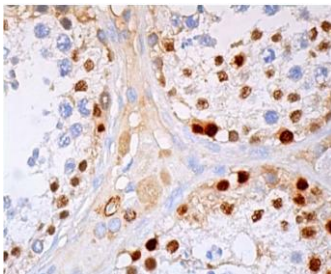
**Specifications:**

Clone: A9  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human, mouse, rat  
 Immunogen: Human DMRT1 C-terminus aa 134-373  
 Localization: Nucleus  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., IF, IP, WB  
 Package:

Description	Catalog No.	Size
DMRT1 Concentrated	MC0404	1 ml
DMRT1 Prediluted	MC0404RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Embryonal cancer, testis  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual  
 \* Result should be confirmed by an established diagnostic procedure.



FFPE human testis stained with anti-DMRT1 using DAB

**References:**

1. The ubiquitin ligase subunit  $\beta$ -TrCP in Sertoli cells is essential for spermatogenesis in mice. Akane Morohoshi, et al. Dev Biol. Jan 15;445(2):178-188, 2019.
2. Ensuring meiotic DNA break formation in the mouse pseudoautosomal region. Laurent Acquaviva, et al. Nature. Jun;582(7812):426-431, 2020.

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