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Anti-DMRT1 Antibody
Catalog # ABO12761

Specification

Anti-DMRT1 Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9Y5R6
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Doublesex- and mab-3-related transcription factor 1(DMRT1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-DMRT1 Antibody - Additional Information

Gene ID 1761

Other Names
Doublesex- and mab-3-related transcription factor 1, DM domain expressed in testis protein 1, DMRT1, DMT1

Calculated MW
39473 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Nucleus .

Tissue Specificity
Testis-specific. Expressed in prostate cancer (at protein level). .

Protein Name
Doublesex- and mab-3-related transcription factor 1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human DMRT1 (98-128aa RDCQCKKCNLIAERQRVMAAQVALRRQQAQE), different from the related mouse sequence by one amino acid.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the DMRT family.

Anti-DMRT1 Antibody - Protein Information

Name DMRT1

Synonyms DMT1

Function
Transcription factor that plays a key role in male sex determination and differentiation by controlling testis development and male germ cell proliferation. Plays a central role in spermatogonia by inhibiting meiosis in undifferentiated spermatogonia and promoting mitosis, leading to spermatogonial development and allowing abundant and continuous production of sperm. Acts both as a transcription repressor and activator: prevents meiosis by restricting retinoic acid (RA)-dependent transcription and repressing STRA8 expression and promotes spermatogonial development by activating spermatogonial differentiation genes, such as SOHLH1. Also plays a key role in postnatal sex maintenance by maintaining testis determination and preventing feminization: represses transcription of female promoting genes such as FOXL2 and activates male-specific genes. May act as a tumor suppressor. May also play a minor role in oogenesis (By similarity).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00070}.

Tissue Location
Testis-specific. Expressed in prostate cancer (at protein level).

Anti-DMRT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-DMRT1 Antibody - Images

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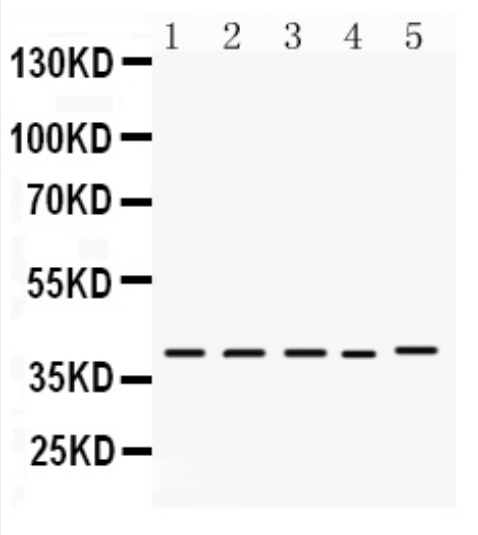
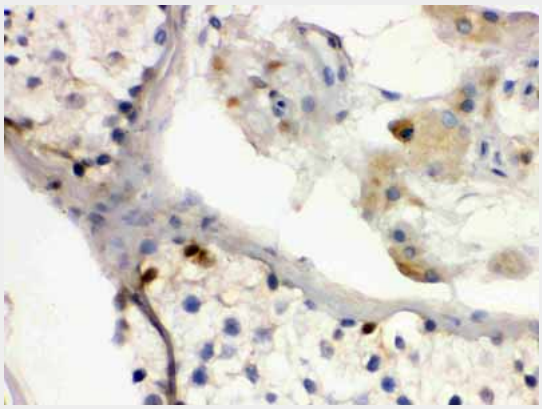


Anti- DMRT1 antibody, ABO12761, Western blottingAll lanes: Anti DMRT1 (ABO12761) at 0.5ug/mlLane 1: Rat Testis Tissue Lysate at 50ugLane 2: Mouse Testis Tissue Lysate at 50ugLane 3: Rat Brain Tissue Lysate at 50ugLane 4: Mouse Brain Tissue Lysate at 50ugLane 5: U87 Whole Cell Lysate at 40ugPredicted bind size: 39KDObserved bind size: 39KD



Anti- DMRT1 antibody, ABO12761,IHC(P)IHC(P): Human Testis Tissue

Anti-DMRT1 Antibody - Background

Doublesex and mab-3 related transcription factor 1, also known as DMRT1, is a protein which in humans is encoded by the DMRT1 gene. This gene is found in a cluster with two other members of the gene family, having in common a zinc finger-like DNA-binding motif (DM domain). The DM domain is an ancient, conserved component of the vertebrate sex-determining pathway that is also a key regulator of male development in flies and nematodes. This gene exhibits a gonad-specific and sexually dimorphic expression pattern. Defective testicular development and XY feminization occur when this gene is hemizygous.