

## Product datasheet

### Anti-DDX4 / MVH antibody [EPR24148-58] ab270534

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [1 References](#) [12 Images](#)

#### Overview

<b>Product name</b>	Anti-DDX4 / MVH antibody [EPR24148-58]
<b>Description</b>	Rabbit monoclonal [EPR24148-58] to DDX4 / MVH
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, IHC-P, WB, mlHC <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: Human testis tissue lysate; Mouse testis tissue lysate; rat testis tissue lysate. IHC-P: Human testis and ovary tissue; Mouse testis and ovary tissue; Rat testis and ovary tissue. IHC-Fr: Mouse testis tissue; Rat testis tissue. mlHC: Human testis.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 59.94% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR24148-58

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab270534 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★★ (1)	1/250. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 79 kDa (predicted molecular weight: 79 kDa).
mlHC		Use at an assay dependent concentration.

### Application notes

Is unsuitable for Flow Cyt, ICC/IF or IP.

## Target

### Function

Probable ATP-dependent RNA helicase required during spermatogenesis (PubMed:10920202, PubMed:21034600). Required to repress transposable elements and preventing their mobilization, which is essential for the germline integrity. Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposons. Involved in the secondary piRNAs metabolic process, the production of piRNAs in fetal male germ cells through a ping-pong amplification cycle.

### Tissue specificity

Expressed only in ovary and testis. Expressed in migratory primordial germ cells in the region of the gonadal ridge in both sexes.

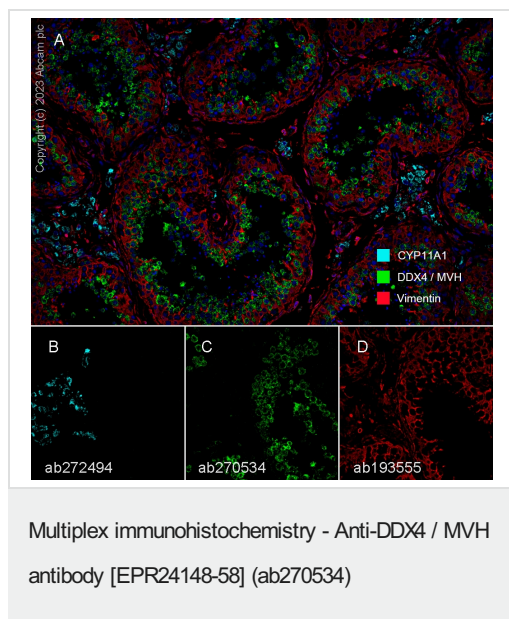
### Sequence similarities

Belongs to the DEAD box helicase family. DDX4/VASA subfamily.  
Contains 1 helicase ATP-binding domain.  
Contains 1 helicase C-terminal domain.

### Cellular localization

Cytoplasm. Cytoplasm, perinuclear region. Component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon activity during meiosis.

## Images



Multiplex immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human testis tissue.

Panel A: Merged staining of anti-Vimentin (**ab193555**; red; Opal™690), anti-CYP11A1 (**ab272494**; cyan; Opal™520) and anti-DDX4 / MVH (ab270534; green; Opal™570) on human testis.

Panel B: Anti-CYP11A1 stained on Leydig cells.

Panel C: Anti-DDX4 / MVH stained on all spermatogenic cell types.

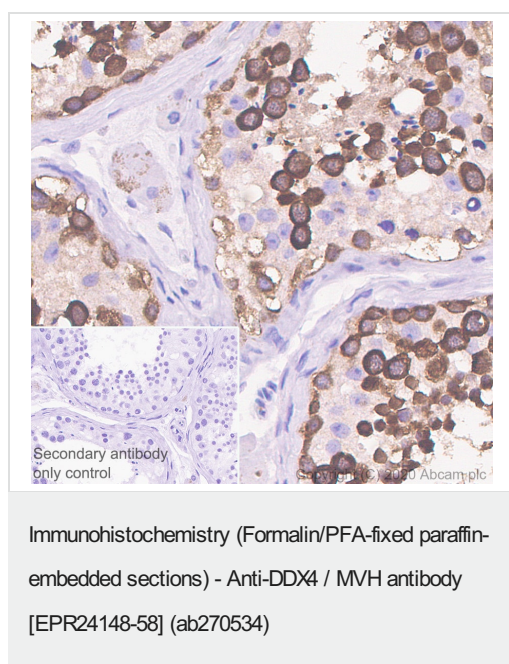
Panel D: Anti-Vimentin stained on Sertoli cells and fibroblasts.

Key protocol steps: The section was incubated in three rounds of staining: in the order of **ab193555** (1:2000 dilution) and **ab272494** (1:10000 dilution) for 30 mins, then ab270534 (1:2000 dilution) for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

DAPI was used as a nuclear counter stain. Opal Polymer HRP Ms + Rb was used as a secondary.

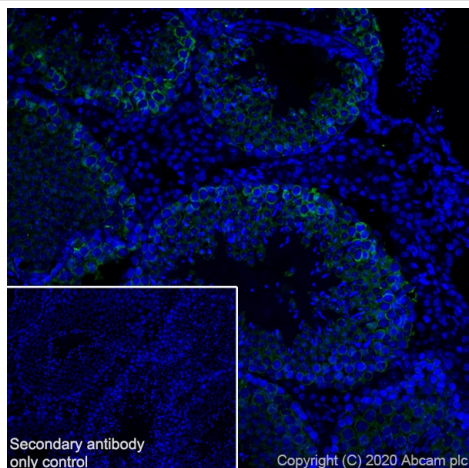
Antigen retrieval: Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling DDX4 / MVH with ab270534 at 1/2000 (0.228 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining in spermatogonia and spermatocytes of human testis (PMID:26444630). The section was incubated with ab270534 for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

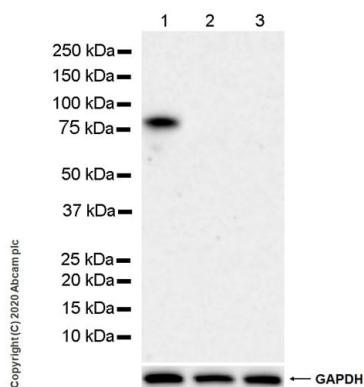


Immunohistochemistry (Frozen sections) - Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse testis tissue labeling DDX4 / MVH with ab270534 at 1/250 (1.824 ug/ml) dilution followed by [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on mouse testis is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is [ab150077](#) Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).



Western blot - Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534)

**All lanes :** Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534) at 1/1000 dilution

**Lane 1 :** Human testis tissue lysate

**Lane 2 :** Human spleen tissue lysate

**Lane 3 :** Human colon tissue lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated ([ab97051](#)) at 1/100000 dilution

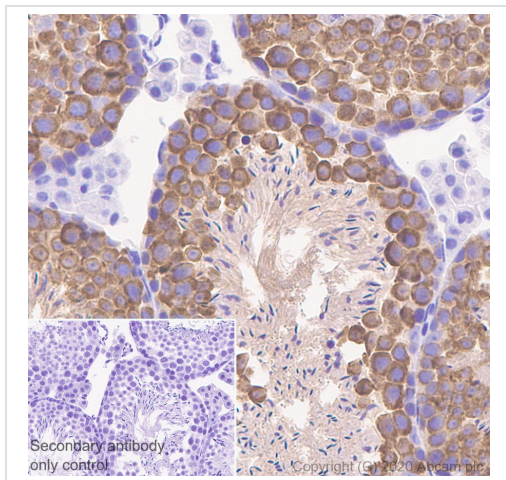
**Predicted band size:** 79 kDa

**Observed band size:** 79 kDa

Blocking and diluting buffer and concentration: 5% NFDm/TBST.

**Negative control:** Human spleen, Human colon (PMID: 10920202).

Exposure time: 3 minutes.

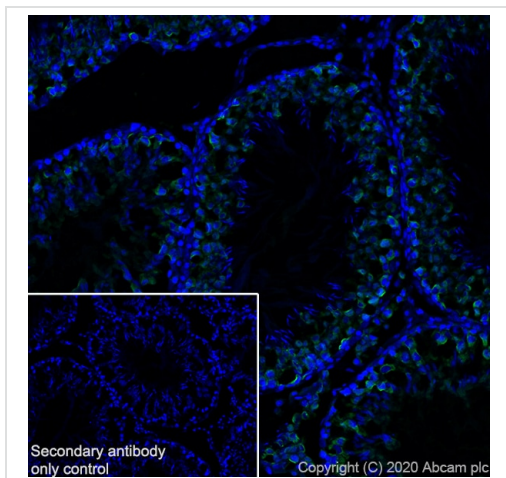


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534)

Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling DDX4 / MVH with ab270534 at 1/2000 (0.228 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Cytoplasmic staining in spermatogonia and spermatocytes of mouse testis. The section was incubated with ab270534 for 10 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



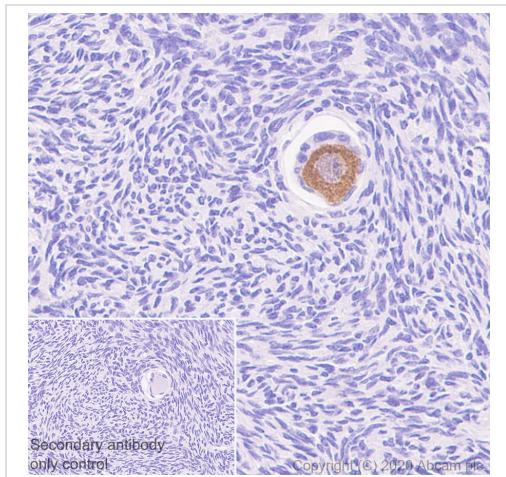
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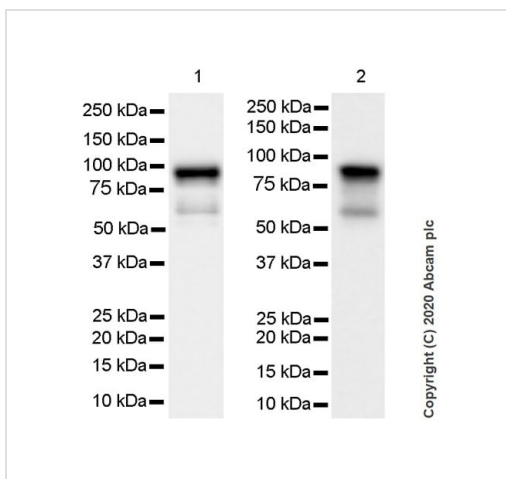


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Western blot - Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534)

**All lanes :** Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534) at 1/1000 dilution

**Lane 1 :** Rat testis tissue lysate

**Lane 2 :** Mouse testis tissue lysate

Lysates/proteins at 20 µg per lane.

### Secondary

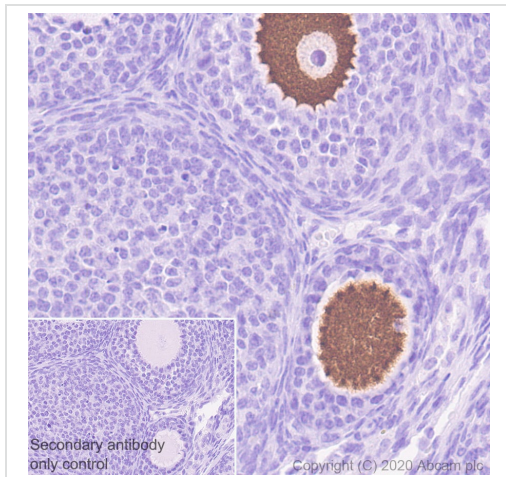
**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

**Predicted band size:** 79 kDa

**Observed band size:** 79 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Exposure times: lane 1: 10 seconds lane 2: 7 seconds.

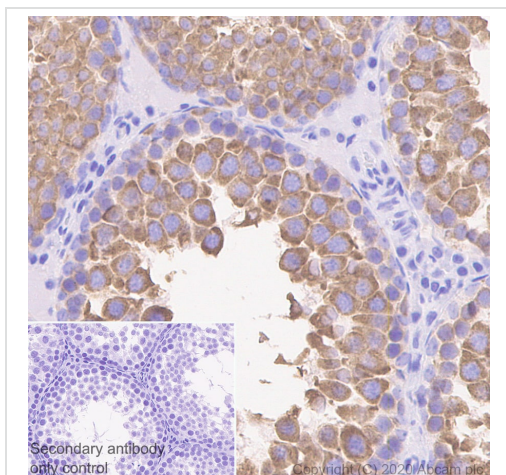


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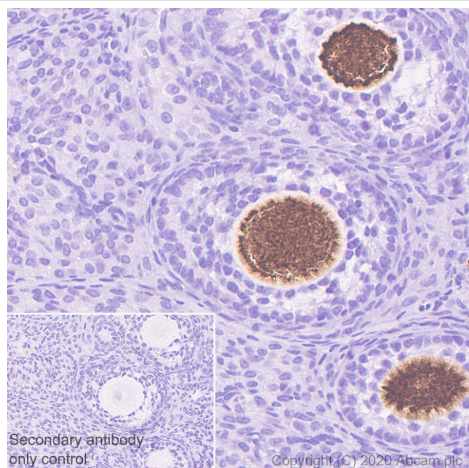


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#### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-DDX4 / MVH antibody [EPR24148-58] (ab270534)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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