abcam

Product datasheet

Anti-DDX4 / MVH antibody ab13840

★★★★★ 22 Abreviews 487 References 6 Images

Overview

Product name	Anti-DDX4 / MVH antibody
Description	Rabbit polyclonal to DDX4 / MVH
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, IHC-P, IHC-Fr
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat, Sheep, Cow, Pig, Platypus
Immunogen	Synthetic peptide within Human DDX4/ MVH aa 700 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. The exact sequence is proprietary. Database link: **Q9NQI0** (Peptide available as **ab13841**)
Positive control	ICC: mES cells
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab13840 in the following tested applications.

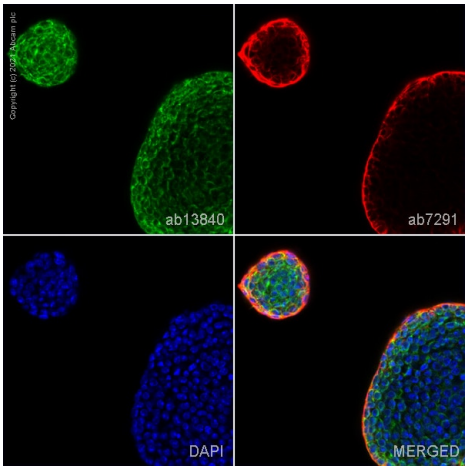
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 76 kDa (predicted molecular weight: 76 kDa).Can be blocked with **DDX4 / MVH peptide (ab13841)**.
ICC/IF	★★★★★ (2)	Use a concentration of 1 µg/ml.
IHC-P	★★★★★ (11)	Use at an assay dependent concentration.
IHC-Fr	★★★★★ (7)	Use at an assay dependent concentration.

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.

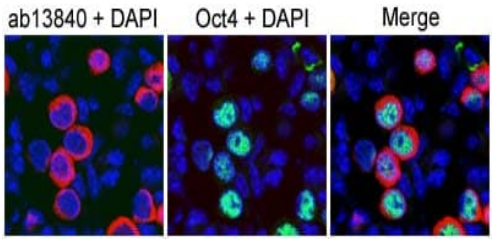
Images



Immunocytochemistry/ Immunofluorescence - Anti-DDX4 / MVH antibody (ab13840)

ab13840 staining DDX4/MVH in mES cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab13840 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.

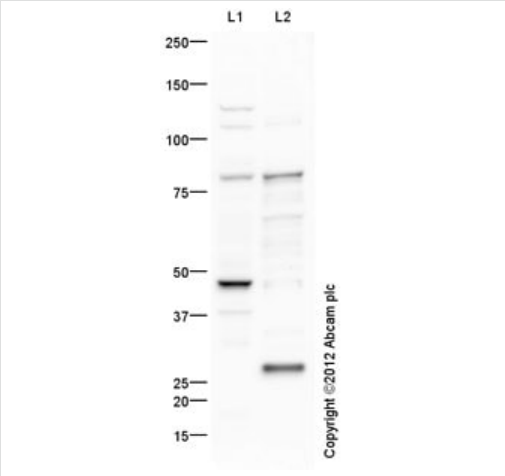


Immunohistochemistry (Frozen sections) - Anti-DDX4 / MVH antibody (ab13840)

This image is courtesy of Petra Hajkova, Gurdon Institute, University of Cambridge

Mouse embryonic gonad cells were fixed with 4% PFA, permeabilised and blocked with PBS, 1% BSA, 0.1% TX-100 and incubated with the DDX4 antibody, ab13840 (1 µg/ml) overnight at 4 degrees. ab13840 staining is shown in red and Oct4 staining is shown in green.

The image shows that the anti-DDX4 antibody, ab13840, stains the cytoplasm of mouse primordial germ cells when used in IHC-Fr.



Western blot - Anti-DDX4 / MVH antibody (ab13840)

All lanes : Anti-DDX4 / MVH antibody (ab13840) at 1 µg/ml

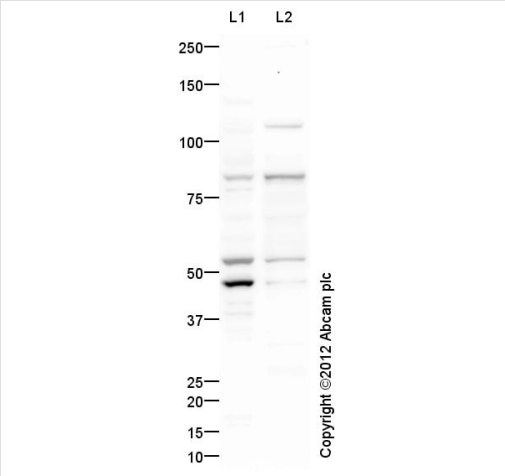
Lane 1 : Mouse EG (TMAS Embryonic Germ Cells) Whole Cell Lysate
Lane 2 : Human testis tissue lysate - total protein (**ab30257**)

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Performed under reducing conditions.

Predicted band size: 76 kDa
Observed band size: 76 kDa
Additional bands at: 28 kDa, 47 kDa. We are unsure as to the identity of these extra bands.



Western blot - Anti-DDX4 / MVH antibody (ab13840)

All lanes : ab13840 at 1 µg/ml

Lane 1 : Mouse EG (TMAS Embryonic Germ Cells) Whole Cell Lysate
Lane 2 : Human testis tissue lysate - total protein

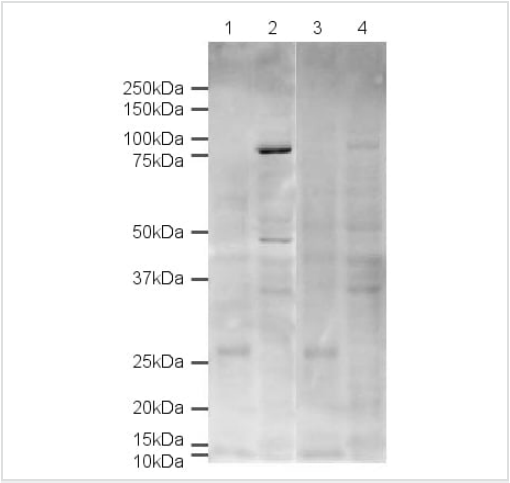
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 76 kDa
Observed band size: 79 kDa
Additional bands at: 47 kDa, 52 kDa. We are unsure as to the identity of these extra bands.

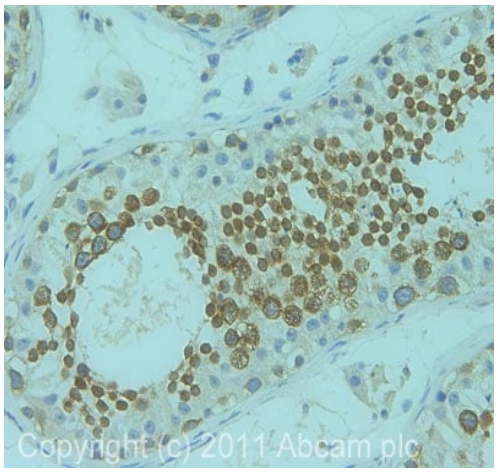


Western blot - Anti-DDX4 / MVH antibody (ab13840)

All lanes : Anti-DDX4 / MVH antibody (ab13840) at 1 µg/ml

Lane 1 : Mouse Ovary Lysate at 10 µg
Lane 2 : Mouse Embryonic Germ Cell Lysate at 20 µg
Lane 3 : Mouse Ovary Lysate at 10 µg with DDX4 / MVH peptide (**ab13841**) at 1 µg/ml
Lane 4 : Mouse Embryonic Germ Cell Lysate at 20 µg with DDX4 / MVH peptide (**ab13841**) at 1 µg/ml

Predicted band size: 76 kDa
Observed band size: 76 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DDX4 / MVH antibody (ab13840)

IHC image of DDX4/MVH staining in human testis formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab13840, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors