

Anti-DDX4/MVH Antibody Picoband®

Catalog Number: PA1963

About DDX4

DDX4 (DEAD/H BOX 4), also known as VASA. The deduced 724-amino acid VASA protein contains the 8 conserved domains found in all known DEAD box proteins. The amino acid sequence in this core region shows greater similarity to VASA homologs in other species than to other human DEAD box proteins. By radiation hybrid analysis, Castrillon et al. (2000) mapped the VASA gene to 5q. By fluorescence in situ hybridization, they refined the localization to 5q11.2-q12. This region is syntenic to the distal end of mouse chromosome 13, where the mouse VASA homolog (Ddx4) resides (Abe and Noce, 1997). Using a combination of proteomics, cytology, and functional analysis in *C. elegans*, Chu et al. (2006) reduced 1,099 proteins copurified with spermatogenic chromatin to 132 proteins for functional analysis.

Overview

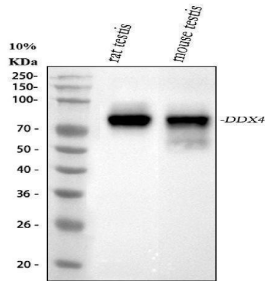
Product Name	Anti-DDX4/MVH Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-DDX4/MVH Antibody catalog # PA1963. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9NQI0

Technical Details

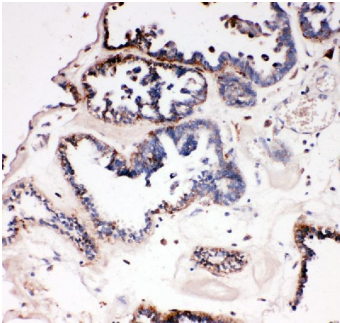
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human DDX4, identical to the the related rat and mouse sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and

	ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat Immunocytochemistry , 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

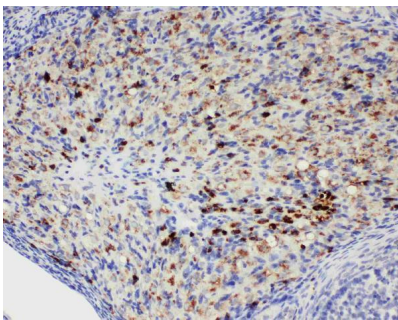
Anti-DDX4/MVH Antibody Picoband® (PA1963) Images



Western blot analysis of DDX4 using anti-DDX4 antibody (PA1963). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat testis tissue lysates, Lane 2: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-DDX4 antigen affinity purified polyclonal antibody (Catalog # PA1963) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for DDX4 at approximately 76 kDa. The expected band size for DDX4 is at 76 kDa.

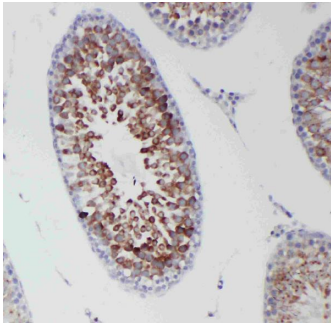


IHC analysis of DDX4/MVH using anti-DDX4/MVH antibody (PA1963). DDX4/MVH was detected in paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-DDX4/MVH Antibody (PA1963) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

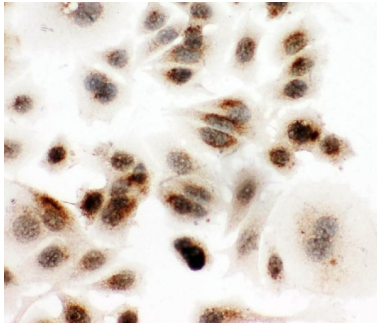


IHC analysis of DDX4/MVH using anti-DDX4/MVH antibody (PA1963). DDX4/MVH was detected in paraffin-embedded section of Rat Ovary tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-DDX4/MVH Antibody (PA1963) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

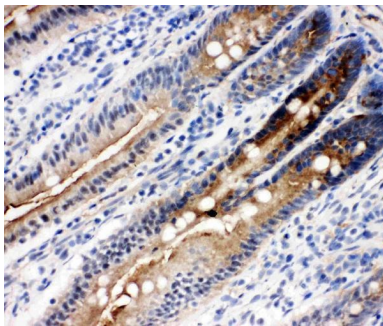
IHC analysis of DDX4/MVH using anti-DDX4/MVH antibody (PA1963). DDX4/MVH was detected in paraffin-embedded section of Rat Testis tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with



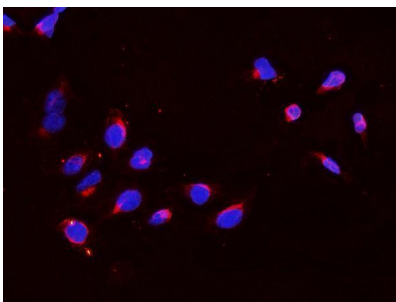
1ug/ml rabbit anti-DDX4/MVH Antibody (PA1963) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Anti-DDX4/MVH antibody, PA1963, ICC/ICC: MCF-7 Cell

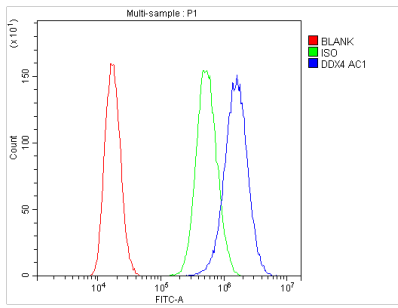


Anti-DDX4/MVH antibody, PA1963, IHC(F)/IHC(F): Rat Intestine Tissue

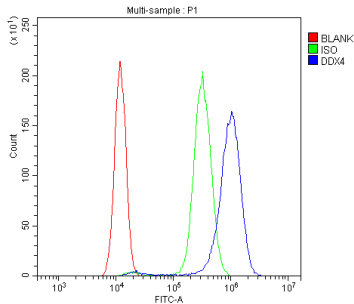


IF analysis of DDX4/MVH using anti-DDX4/MVH antibody (PA1963). DDX4/MVH was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-DDX4/MVH Antibody (PA1963) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Flow Cytometry analysis of PC-3 cells using anti-DDX4/MVH antibody (PA1963). Overlay histogram showing PC-3 cells stained with PA1963 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DDX4/MVH Antibody (PA1963, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as



secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of SiHa cells using anti-DDX4/MVH antibody (PA1963). Overlay histogram showing SiHa cells stained with PA1963 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DDX4/MVH Antibody (PA1963, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

1 Publications Citing This Product

1. PubMed ID: 10.1016/j.repbio.2020.100477, Evaluating differentiation potential of the human menstrual blood-derived stem cells from infertile women into oocyte-like cells

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Anti-DDX4/MVH Antibody

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