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Anti-EIF4A3 Antibody Picoband®

Catalog Number: A03095-2

About EIF4A3

This gene encodes a member of the DEAD box protein family. DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure, such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. The protein encoded by this gene is a nuclear matrix protein. Its amino acid sequence is highly similar to the amino acid sequences of the translation initiation factors eIF4AI and eIF4AII, two other members of the DEAD box protein family.

Overview

Product Name	Anti-EIF4A3 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-EIF4A3 Antibody Picoband® catalog # A03095-2. Tested in WB, IHC, ICC, IF, IP, Flow Cytometry, ELISA 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	ELISA, Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P38919

Technical Details

Immunogen	E.coli-derived human EIF4A3 recombinant protein (Position: R14-I411). Human EIF4A3 shares 99.7% and 100% amino acid (aa) sequence identity with mouse and rat EIF4A3, respectively.
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, 0.25-0.5 ug/ml, Human, Mouse, Rat

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	Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml

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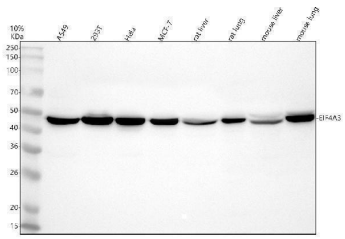
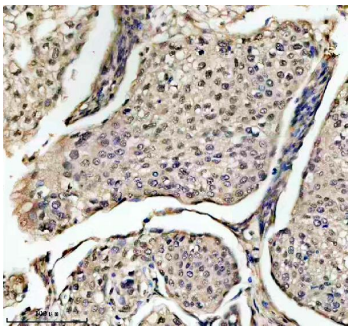
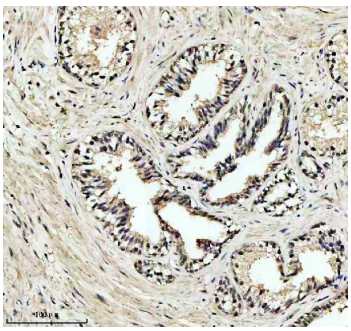
Anti-EIF4A3 Antibody Picoband® (A03095-2) Images



Western blot analysis of EIF4A3 using anti-EIF4A3 antibody (A03095-2). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat liver tissue lysates, Lane 6: rat lung tissue lysates, Lane 7: mouse liver tissue lysates, Lane 8: mouse lung 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-EIF4A3 antigen affinity purified polyclonal antibody (A03095-2) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for EIF4A3 at approximately 47 kDa. The expected band size for EIF4A3 is at 47 kDa.



IHC analysis of EIF4A3 using anti-EIF4A3 antibody (A03095-2). EIF4A3 was detected in a paraffin-embedded section of human cervical cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-EIF4A3 Antibody (A03095-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of EIF4A3 using anti-EIF4A3 antibody (A03095-2). EIF4A3 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-EIF4A3 Antibody (A03095-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IF analysis of EIF4A3 using anti-EIF4A3 antibody (A03095-2) and anti-Beta Tubulin antibody (M01857-3). EIF4A3 was

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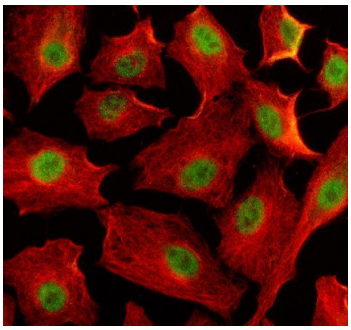
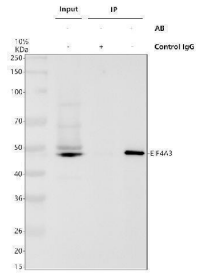
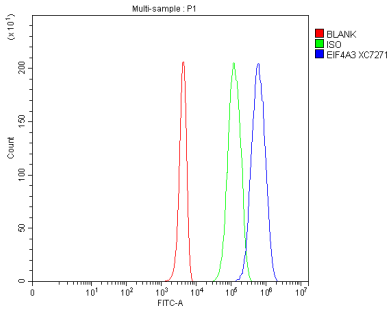


detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-EIF4A3 Antibody (A03095-2) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Immunoprecipitating EIF4A3 in 293T whole cell lysate. Western blot analysis of EIF4A3 using anti-EIF4A3 antibody (A03095-2). Lane 1: 293T whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-EIF4A3 antibody in 293T whole cell lysate, Lane 3: anti-EIF4A3 antibody (2ug) + 293T whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-EIF4A3 antigen affinity purified polyclonal antibody (A03095-2) at a dilution of 0.5 ug/mL and probed with a mouse anti-rabbit IgG-HRP secondary antibody (Catalog # BM2007). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for EIF4A3 at approximately 47 kDa. The expected band size for EIF4A3 is at 47 kDa.



Flow Cytometry analysis of 293T cells using anti-EIF4A3 antibody (A03095-2). Overlay histogram showing 293T cells stained with A03095-2 (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-EIF4A3 Antibody (A03095-2, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-EIF4A3 Antibody

For Research Use Only. Not for use in diagnostic procedures.