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Anti-FOXM1 Antibody Picoband™

Catalog Number: A00659-3

About FOXM1

Forkhead box protein M1, also called FOXM1, is a protein that in humans is encoded by the FOXM1 gene. It is mapped to 12p13.33. The protein encoded by this gene is a member of the FOX family of transcription factors. FOXM1 is known to play a key role in cell cycle progression where endogenous FOXM1 expression peaks at S and G2/M phases and also in the control of cell proliferation. FOXM1 gene is now known as a human proto-oncogene. Abnormal upregulation of FOXM1 is involved in the oncogenesis of basal cell carcinoma, the most common human cancer worldwide. It was hypothesized that FOXM1 induces cancer initiation through stem/progenitor cell expansion. What's more, FOXM1 has been shown to modulate the epigenome. It was found that overexpression of FOXM1 "brain washes" normal cells to adopt cancer-like epigenome.

Overview

Product Name	Anti-FOXM1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-FOXM1 Antibody Picoband™ catalog # A00659-3. Tested in WB, ICC/IF, FCM, ELISA applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, 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	Q08050

Technical Details

Immunogen	E.coli-derived human FOXM1 recombinant protein (Position: K48-Q763). Human FOXM1 shares 78.9% and 81.1% amino acid (aa) sequence identity with mouse and rat FOXM1, respectively.
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 ICC.
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this

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	kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human Flow Cytometry (Fixed), 1-3 µg/1x10^6 cells, Human ELISA, 0.1-0.5 µg/ml, Human

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Anti-FOXM1 Antibody Picoband™ (A00659-3) Images

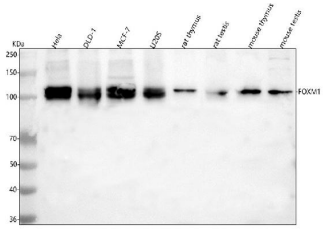

Figure 1. Western blot analysis of FOXM1 using anti-FOXM1 antibody (A00659-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human DLD-1 whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: human U2OS whole cell lysates,
Lane 5: rat thymus tissue lysates,
Lane 6: rat testis tissue lysates,
Lane 7: mouse thymus tissue lysates,
Lane 8: 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-FOXM1 antigen affinity purified polyclonal antibody (Catalog # A00659-3) 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 FOXM1 at approximately 110 kDa. The expected band size for FOXM1 is at 84 kDa.

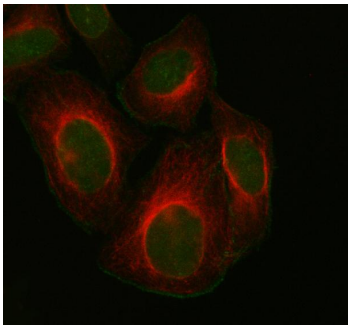

Figure 2. IF analysis of FOXM1 using anti-FOXM1 antibody (A00659-3) and anti-Beta Tubulin antibody (M01857-3). FOXM1 was detected in immunocytochemical section of HELA cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-FOXM1 Antibody (A00659-3) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®550 Conjugated Goat Anti-Mouse IgG (BA1133) 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.

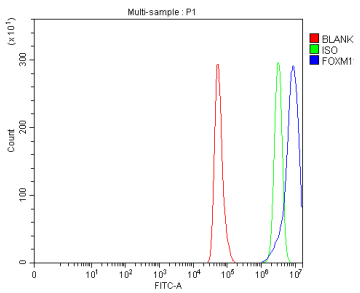

Figure 3. Flow Cytometry analysis of Hela cells using anti-FOXM1 antibody (A00659-3).
Overlay histogram showing Hela cells stained with A00659-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-FOXM1 Antibody (A00659-3, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary

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antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.