

Anti-NSMCE4A Antibody Picoband™

Catalog Number: A14289-1

About NSMCE4A

Non-SMC element 4 homolog A is a protein that in humans is encoded by the NSMCE4A gene. NSMCE4A is a component of the SMC5-SMC6 complex, a complex involved in DNA double-strand breaks by homologous recombination. The complex may promote sister chromatid homologous recombination by recruiting the SMC1-SMC3 cohesin complex to double-strand breaks. The complex is required for telomere maintenance via recombination in ALT (alternative lengthening of telomeres) cell lines and mediates sumoylation of shelterin complex (telosome) components which is proposed to lead to shelterin complex disassembly in ALT-associated PML bodies (APBs). It is involved in positive regulation of response to DNA damage stimulus.

Overview

Product Name	Anti-NSMCE4A Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NSMCE4A Antibody Picoband™ catalog # A14289-1. Tested in WB, ICC/IF, FCM, ELISA applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal 1B9
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	Q9NXX6

Technical Details

Immunogen	E.coli-derived human NSMCE4A recombinant protein (Position: D69-Q380).
Predicted Reactive Species	Bovine, Canine, Chicken, Primate, Sheep, Xenopus, Zebrafish
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.
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat</p> <p>Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human</p> <p>Flow Cytometry (Fixed), 1-3 µg/1x10⁶ cells, Human</p> <p>ELISA, 0.1-0.5 µg/ml, Human</p>

Anti-NSMCE4A Antibody Picoband™ (A14289-1) Images

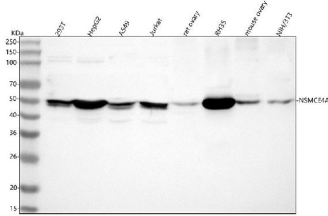


Figure 1. Western blot analysis of NSMCE4A using anti-NSMCE4A antibody (A14289-1).

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 293T whole cell lysates,
Lane 2: human HepG2 whole cell lysates,
Lane 3: human A549 whole cell lysates,
Lane 4: human Jurkat whole cell lysates,
Lane 5: rat ovary tissue lysates,
Lane 6: rat RH35 whole cell lysates,
Lane 7: mouse ovary tissue lysates,
Lane 8: mouse NIH/3T3 whole cell 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-NSMCE4A antigen affinity purified polyclonal antibody (Catalog # A14289-1) 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 NSMCE4A at approximately 50 kDa. The expected band size for NSMCE4A is at 44 kDa.

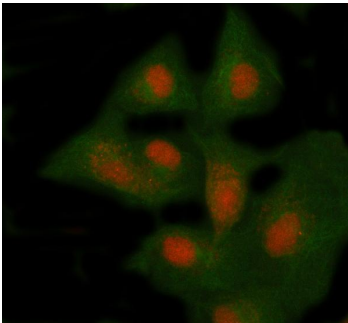
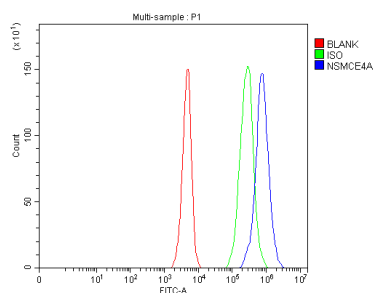


Figure 2. IF analysis of NSMCE4A using anti-NSMCE4A antibody (A14289-1) and anti-Beta Tubulin antibody (M01857-3).

NSMCE4A was detected in immunocytochemical section of A549 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-NSMCE4A Antibody (A14289-1) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) 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 JK cells using anti-NSMCE4A antibody (A14289-1).

Overlay histogram showing JK cells stained with A14289-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-NSMCE4A Antibody (A14289-1, 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 (Red line) was also used as a control.

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