BOSTER BIOLOGICAL TECHNOLOGY
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Anti-NSMCE2 Antibody Picoband®

Catalog Number: A06693-1

About NSMCE2

This gene encodes a member of a family of E3 small ubiquitin-related modifier (SUMO) ligases that mediates the attachment of a SUMO protein to proteins involved in nuclear transport, transcription, chromosome segregation and DNA repair. The encoded protein is part of the structural maintenance of chromosomes (SMC) 5/6 complex which plays a key role genome maintenance, facilitating chromosome segregation and suppressing mitotic recombination. A knockout of the orthologous mouse gene is lethal prior to embryonic day 10.5. Naturally occurring mutations in this gene, that abolish the SUMO ligase activity, are associated with primordial dwarfism and extreme insulin resistance.

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Overview

Product Name	Anti-NSMCE2 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-NSMCE2 Antibody Picoband® catalog # A06693-1. Tested in ELISA, Flow Cytometry, IP, IF, 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	ELISA, Flow Cytometry, IP, 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	Q96MF7

Technical Details

Immunogen	E.coli-derived human NSMCE2 recombinant protein (Position: F14-D228).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Mouse, Rat 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, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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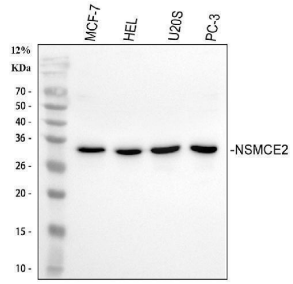
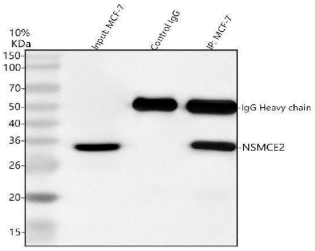
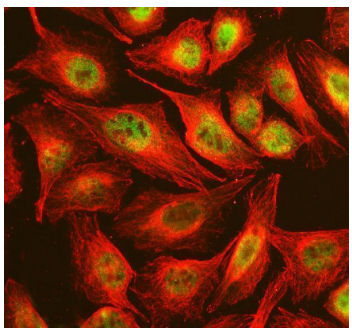
Anti-NSMCE2 Antibody Picoband® (A06693-1) Images



Western blot analysis of NSMCE2 using anti-NSMCE2 antibody (A06693-1). 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 MCF-7 whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human U2OS whole cell lysates, Lane 4: human PC-3 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-NSMCE2 antigen affinity purified polyclonal antibody (Catalog # A06693-1) 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 NSMCE2 at approximately 34 kDa. The expected band size for NSMCE2 is at 28 kDa.



Immunoprecipitating NSMCE2 in MCF-7 whole cell lysate.Western blot analysis of NSMCE2 using anti-NSMCE2 antibody (A02215-2).Lane 1: MCF-7 whole cell lysates (30ug)Lane 2: Rabbit control IgG instead of anti-NSMCE2 antibody in MCF-7 whole cell lysate.Lane 3: anti-NSMCE2 antibody (2ug) + MCF-7 whole cell lysate (500ug)After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-NSMCE2 antigen affinity purified polyclonal antibody (A02215-2) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for NSMCE2 at approximately 34 kDa. The expected band size for NSMCE2 is at 28 kDa.



IF analysis of NSMCE2 using anti-NSMCE2 antibody (A06693-1) and anti-Beta Tubulin antibody (M01857-3). NSMCE2 was detected in an 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 5 ug/mL rabbit anti-NSMCE2 Antibody (A06693-1) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and DyLight®594 Conjugated Goat Anti-Mouse IgG (BA1141) 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.

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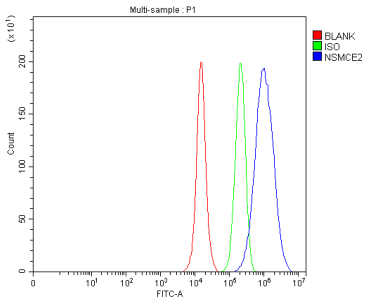

Flow Cytometry analysis of PC-3 cells using anti-NSMCE2 antibody (A06693-1). Overlay histogram showing PC-3 cells stained with A06693-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-NSMCE2 Antibody (A06693-1, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Anti-NSMCE2 Antibody

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