

## Anti-SMC6 Antibody Picoband®

Catalog Number: A01554-2

### About SMC6

Structural maintenance of chromosomes protein 6 is a protein that in humans is encoded by the SMC6 gene. Structural maintenance of chromosomes protein 6, also known as SMC6L1, is a protein that in humans is encoded by the SMC6 gene. It is involved in the Alternative lengthening of telomeres cancer mechanism. The International Radiation Hybrid Mapping Consortium mapped the SMC6L1 gene to chromosome 2.

### Overview

Product Name	Anti-SMC6 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-SMC6 Antibody Picoband® catalog # A01554-2. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, 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, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
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	Q96SB8

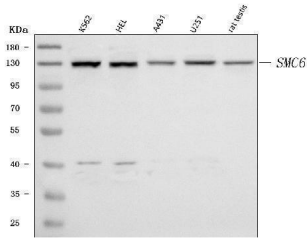
### Technical Details

Immunogen	E.coli-derived human SMC6 recombinant protein (Position: H499-D1018).
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) 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 µg/ml.
Purification	Immunogen affinity purified.

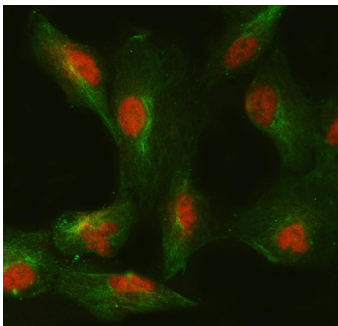
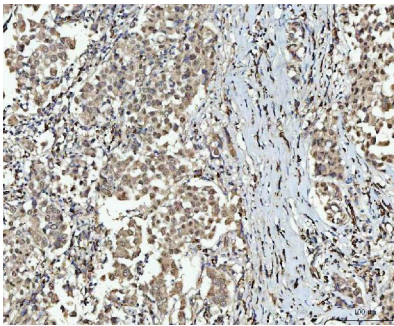
Suggested Dilutions

Western blot, 0.25-0.5 ug/ml, Human, Rat  
Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human  
Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human  
Immunofluorescence, 5 ug/ml, Human  
Flow Cytometry (Fixed), 1-3 ug/1x10<sup>6</sup> cells, Human  
ELISA, 0.1-0.5 ug/ml, -

## Anti-SMC6 Antibody Picoband® (A01554-2) Images



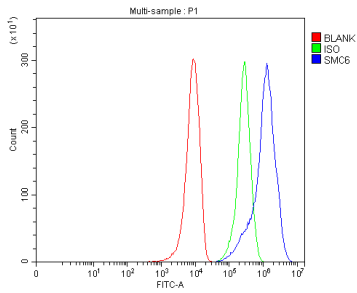
Western blot analysis of SMC6 using anti-SMC6 antibody (A01554-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human A431 whole cell lysates, Lane 4: human U251 whole cell lysates, Lane 5: rat 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-SMC6 antigen affinity purified polyclonal antibody (Catalog # A01554-2) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SMC6 at approximately 130 kDa. The expected band size for SMC6 is at 126 kDa.



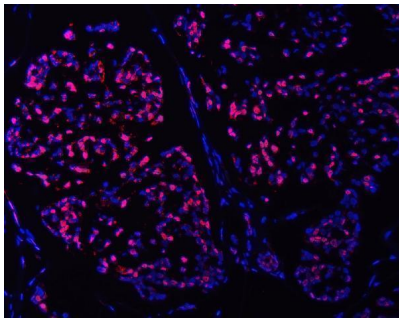
IHC analysis of SMC6 using anti-SMC6 antibody (A01554-2). SMC6 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SMC6 Antibody (A01554-2) 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 SMC6 and Tubulin beta using anti-SMC6 antibody (A01554-2) and anti-Tubulin beta antibody (M05613-4). SMC6 and Tubulin beta was 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-SMC6 Antibody (A01554-2) and mouse anti-Tubulin beta Antibody (M05613-4) 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.

Flow Cytometry analysis of 293T cells using anti-SMC6 antibody (A01554-2). Overlay histogram showing 293T cells



stained with A01554-2 (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-SMC6 Antibody (A01554-2, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of SMC6 using anti-SMC6 antibody (A01554-2). SMC6 was detected in a paraffin-embedded section of human breast 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 5 ug/mL rabbit anti-SMC6 Antibody (A01554-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.

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### Anti-SMC6 Antibody

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