BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CEP55 antibody Picoband®

Catalog Number: A03954-3

About CEP55

The 55 kDa centrosomal protein (CEP55) is a widely expressed centrosome and midbody-associated protein that regulates cytokinesis, including completion of the final step during cytokinesis known as abscission (1,2). CEP55 activity during abscission is negatively regulated by p53 through Polo-like kinase 1 (3,4). The breast and ovarian cancer DNA repair protein BRCA2 interacts with CEP55 and plays a regulatory role during abscission (5). Research studies demonstrate that CEP55 is also involved in the regulation of Akt signaling, autophagy, and may be a biomarker in human cancer (reviewed in 6). The correlated overexpression of CEP55, the transcription factor FoxM1, and the HELLS helicase is seen in head and neck squamous cell carcinoma (7,8). Additional studies demonstrate that CEP55 expression regulates cell proliferation in gastric carcinoma (9).

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Overview

Product Name	Anti-CEP55 antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CEP55 antibody catalog # A03954-3. 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	12 months from date of receipt□-20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q53EZ4

Technical Details

Immunogen	E.coli-derived human CEP55 recombinant protein (Position: M1-A350)

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Recommended Detection Systems	Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Isotype	Rabbit IgG
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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/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, 0.1-0.5ug/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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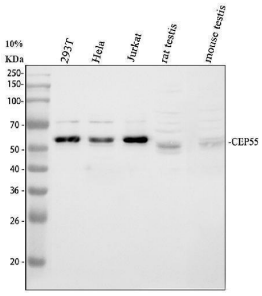
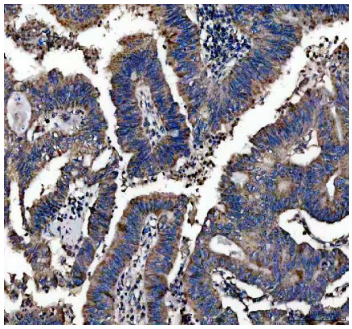
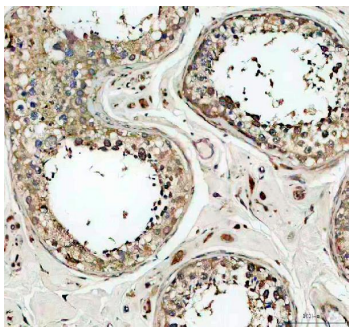
Anti-CEP55 antibody Picoband® (A03954-3) Images



Western blot analysis of CEP55 using anti-CEP55 antibody (A03954-3). 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 293T whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: rat testis tissue lysates, Lane 5: 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-CEP55 antigen affinity purified polyclonal antibody (A03954-3) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for CEP55 at approximately 54 kDa. The expected band size for CEP55 is at 54 kDa.



IHC analysis of CEP55 using anti-CEP55 antibody (A03954-3). CEP55 was detected in a paraffin-embedded section of human colon 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-CEP55 Antibody (A03954-3) 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 CEP55 using anti-CEP55 antibody (A03954-3). CEP55 was detected in a paraffin-embedded section of human testicular 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-CEP55 Antibody (A03954-3) 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 CEP55 using anti-CEP55 antibody (A03954-3). CEP55 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using

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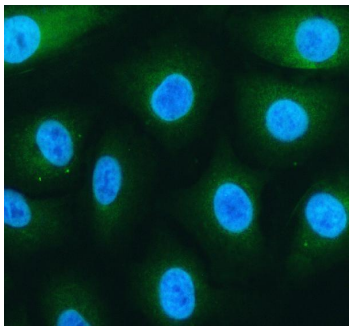
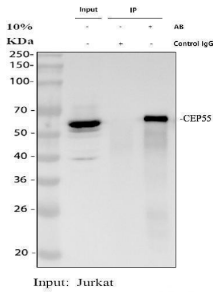
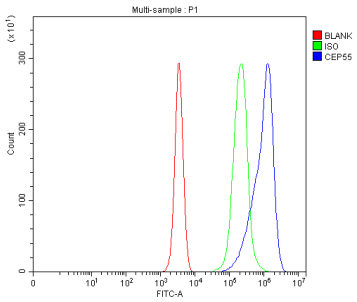


IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-CEP55 Antibody (A03954-3) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated 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.



Immunoprecipitating CEP55 in Jurkat whole cell lysate. Western blot analysis of CEP55 using anti-CEP55 antibody (A03954-3). Lane 1: Jurkat whole cell lysates (30ug), Lane 2: Rabbit control IgG instead of anti-CEP55 antibody in Jurkat whole cell lysate, Lane 3: anti-CEP55 antibody (2ug) + Jurkat whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-CEP55 antigen affinity purified polyclonal antibody (A03954-3) at a dilution of 0.5 ug/mL and probed with a mouse anti-rabbit IgG-HRP secondary antibody (Light Chain). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for CEP55 at approximately 54 kDa. The expected band size for CEP55 is at 54 kDa.



Flow Cytometry analysis of Jurkat cells using anti-CEP55 antibody (A03954-3). Overlay histogram showing Jurkat cells stained with A03954-3 (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-CEP55 Antibody (A03954-3, 1 ug/1x106 cells) for 30 min at 20°C. Fluoro488 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-CEP55 antibody

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