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antibody and ELISA experts

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Anti-RAD21 Antibody Picoband™

Catalog Number: A01864-2

About RAD21

Double-strand-break repair protein rad21 homolog is a protein that in humans is encoded by the RAD21 gene. The protein encoded by this gene is highly similar to the gene product of Schizosaccharomyces pombe rad21, a gene involved in the repair of DNA double-strand breaks, as well as in chromatid cohesion during mitosis. This protein is a nuclear phospho-protein, which becomes hyperphosphorylated in cell cycle M phase. The highly regulated association of this protein with mitotic chromatin specifically at the centromere region suggests its role in sister chromatid cohesion in mitotic cells.

Overview

Product Name	Anti-RAD21 Antibody Picoband™
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-RAD21 Antibody Picoband™ catalog # A01864-2. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat, Monkey.
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	O60216

Technical Details

Immunogen	E.coli-derived human RAD21 recombinant protein (Position: D292-K529).
Predicted Reactive Species	Human
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	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this 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 ug/ml, Human, Mouse, Rat, Monkey Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry, 1-3 ug/1x10^6 cells, Human Direct ELISA, 0.1-0.5 ug/ml, Human

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Anti-RAD21 Antibody Picoband™ (A01864-2) Images

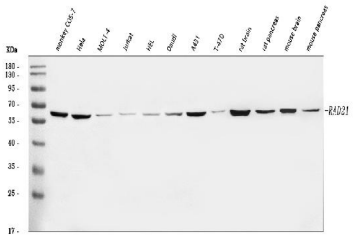

Figure 1. Western blot analysis of RAD21 using anti-RAD21 antibody (A01864-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: monkey COS-7 whole cell lysates,
Lane 2: human Hela whole cell lysates,
Lane 3: human MOLT-4 whole cell lysates,
Lane 4: human Jurkat whole cell lysates,
Lane 5: human HEL whole cell lysates,
Lane 6: human Daudi whole cell lysates,
Lane 7: human A431 whole cell lysates,
Lane 8: human T-47D whole cell lysates,
Lane 9: rat brain tissue lysates,
Lane 10: rat pancreas tissue lysates,
Lane 11: mouse brain tissue lysates,
Lane 12: mouse pancreas 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-RAD21 antigen affinity purified polyclonal antibody (Catalog # A01864-2) 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 RAD21 at approximately 72 kDa. The expected band size for RAD21 is at 72 kDa.

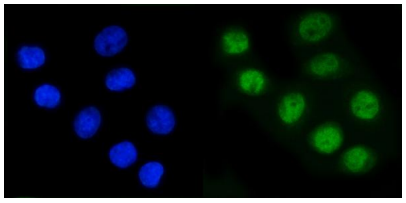

Figure 2. IF analysis of RAD21 using anti-RAD21 antibody (A01864-2).
RAD21 was detected in an immunocytochemical section of SiHa cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-RAD21 Antibody (A01864-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 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.

Figure 3. Flow Cytometry analysis of HL-60 cells using anti-RAD21 antibody (A01864-2).
Overlay histogram showing HL-60 cells stained with A01864-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RAD21 Antibody (A01864-2, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG

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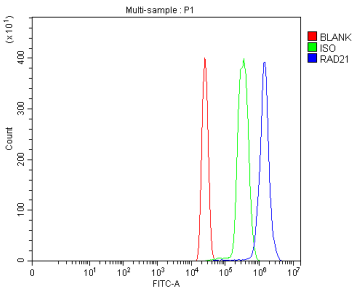

(BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-RAD21 Antibody