

Anti-Rad51 Antibody Picoband™

Catalog Number: PB9323

About RAD51

DNA repair protein RAD51 homolog 1, also known as RAD51A, is a human gene. The Rad51 gene, HsRAD51, is a homolog of RecA of Escherichia coli and functions in recombination and DNA repair. BRCA1 and BRCA2 proteins form a complex with Rad51, and these genes are thought to participate in a common DNA damage response pathway associated with the activation of homologous recombination and double-strand break repair. RAD51 is also found to interact with BRCA1 and BRCA2, which may be important for the cellular response to DNA damage. BRCA2 is shown to regulate both the intracellular localization and DNA-binding ability of this protein. Loss of these controls following BRCA2 inactivation may be a key event leading to genomic instability and tumorigenesis.

Overview

Product Name	Anti-Rad51 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Rad51 Antibody Picoband™ catalog # PB9323. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q06609

Technical Details

Immunogen	E.coli-derived human Rad51 recombinant protein (Position: M1-E258). Human Rad51 shares 98% amino acid (aa) sequence identity with mouse Rad51.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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.
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, 0.1-0.5ug/ml, Human, Mouse, Rat

Anti-Rad51 Antibody Picoband™ (PB9323) Images

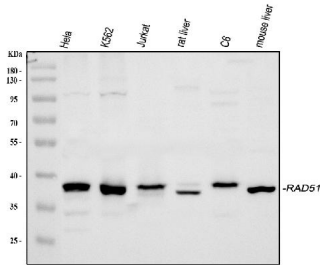


Figure 1. Western blot analysis of Rad51 using anti-Rad51 antibody (PB9323).

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 Hela whole cell lysates,
Lane 2: human K562 whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: rat liver tissue lysates,
Lane 5: rat C6 whole cell lysates,
Lane 6: mouse liver 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-Rad51 antigen affinity purified polyclonal antibody (Catalog # PB9323) 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 Rad51 at approximately 37 kDa. The expected band size for Rad51 is at 37 kDa.

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