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

Anti-Bmi1 Antibody Picoband™

Catalog Number: PB9133

About BMI1

BMI1 (BMI1 polycomb ring finger oncogene), also known as RNF51, is a protein which in humans is encoded by the BMI1 gene. The Bmi1 gene is highly conserved in evolution as indicated by zoo blot hybridization with Bmi1 probes corresponding to the protein-encoding domain. By fluorescence in situ hybridization, the human BMI1 gene is assigned to chromosome 10p13. BMI1 has a key role in regulating the proliferative activity of normal stem and progenitor cells. Most importantly, they provided evidence that the proliferative potential of leukemic stem and progenitor cells lacking BMI1 is compromised because they eventually undergo proliferation arrest and show signs of differentiation and apoptosis, leading to transplant failure of the leukemia. Complementation studies showed that BMI1 completely rescues these proliferative defects. Deletion analysis showed that the RING finger and helix-turn-helix domains of BMI1 were required for life span extension and repression of the tumor suppressor p16 (INK4). BMI1 selectively extended the life span of these cultures. Confocal microscopy showed that BMI1 transiently colocalized with centromeres during interphase in HeLa cells.

Overview

Product Name	Anti-Bmi1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Bmi1 Antibody Picoband™ catalog # PB9133. 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 Na2HPO4, 0.05mg NaN3.
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	P35226

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Bmi1, different from the related mouse sequence by four amino acids.
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

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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

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Anti-Bmi1 Antibody Picoband™ (PB9133) Images

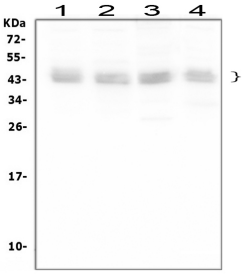

Figure 1. Western blot analysis of BMI1 using anti-BMI1 antibody (PB9133).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human U2O whole cell lysates
Lane 2: human PC-3 whole cell lysates
Lane 3: human HEK293 whole cell lysates
Lane 4: human Caco-2 whole cell lysates
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-BMI1 antigen affinity purified polyclonal antibody (Catalog # PB9133) 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 1:10000 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 BMI1 at approximately 43-45KD. The expected band size for BMI1 is at 39KD.

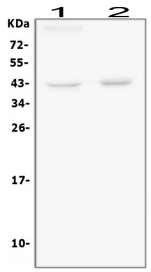

Figure 2. Western blot analysis of BMI1 using anti-BMI1 antibody (PB9133).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: rat brain tissue lysates
Lane 2: mouse brain tissue lysates
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-BMI1 antigen affinity purified polyclonal antibody (Catalog # PB9133) 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 1:10000 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 BMI1 at approximately 43-45KD. The expected band size for BMI1 is at 39KD.

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