

Anti-PRMT1 Antibody Picoband™

Catalog Number: A01417-3

About PRMT1

Protein arginine N-methyltransferase 1 is an enzyme that in humans is encoded by the PRMT1 gene. It is mapped to 19q13.33. This gene encodes a member of the protein arginine N-methyltransferase (PRMT) family. Post-translational modification of target proteins by PRMTs plays an important regulatory role in many biological processes, whereby PRMTs methylate arginine residues by transferring methyl groups from S-adenosyl-L-methionine to terminal guanidino nitrogen atoms. The encoded protein is a type I PRMT and is responsible for the majority of cellular arginine methylation activity. Increased expression of this gene may play a role in many types of cancer. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene, and a pseudogene of this gene is located on the long arm of chromosome 5.

Overview

Product Name	Anti-PRMT1 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-PRMT1 Antibody Picoband™ catalog # A01417-3. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg 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	Q99873

Technical Details

Immunogen	E.coli-derived human PRMT1 recombinant protein (Position: M11-K145).
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 IHC(P).
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Human</p> <p>Immunohistochemistry(Paraffin-embedded Section), 0.5-1 ug/ml, Human, By Heat</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p> <p>Direct ELISA, 0.1-0.5ug/ml, Human</p>

Anti-PRMT1 Antibody Picoband™ (A01417-3) Images

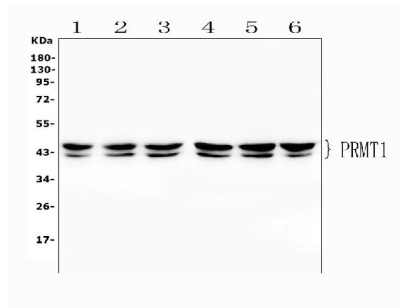


Figure 1. Western blot analysis of PRMT1 using anti-PRMT1 antibody (A01417-3).

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 HEK293 whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human Caco-2 whole cell lysates,

Lane 4: human PC-3 whole cell lysates,

Lane 5: human K562 whole cell lysates,

Lane 6: human Hela 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-PRMT1 antigen affinity purified polyclonal antibody (Catalog # A01417-3) 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 1:10000 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 PRMT1 at approximately 42-45KD. The expected band size for PRMT1 is at 42-45KD.

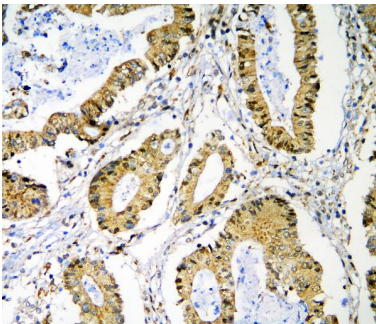


Figure 2. IHC analysis of PRMT1 using anti-PRMT1 antibody (A01417-3).

PRMT1 was detected in paraffin-embedded section of human rectal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PRMT1 Antibody (A01417-3) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

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