

Anti-DNMT3L Antibody Picoband™

Catalog Number: A04214-3

About DNMT3L

DNA (cytosine-5)-methyltransferase 3-like is an enzyme that in humans is encoded by the DNMT3L gene. CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. This gene encodes a nuclear protein with similarity to DNA methyltransferases, but is not thought to function as a DNA methyltransferase as it does not contain the amino acid residues necessary for methyltransferase activity. However, it does stimulate de novo methylation by DNA cytosine methyltransferase 3 alpha and is thought to be required for the establishment of maternal genomic imprints. This protein also mediates transcriptional repression through interaction with histone deacetylase 1. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

Overview

Product Name	Anti-DNMT3L Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-DNMT3L Antibody Picoband™ catalog # A04214-3. Tested in ELISA, Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
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	Q9UJW3

Technical Details

Immunogen	E.coli-derived human DNMT3L recombinant protein (Position: M1-L386).
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	<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, 0.25-0.5 ug/ml, Mouse, Rat</p> <p>Flow Cytometry, 1-3 ug/1x10⁶ cells, Human</p> <p>Direct ELISA, 0.1-0.5 ug/ml, Human</p>

Anti-DNMT3L Antibody Picoband™ (A04214-3) Images

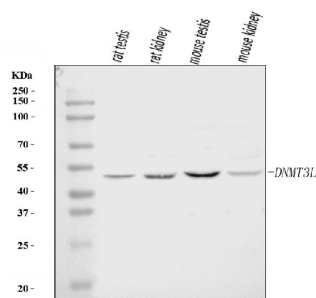


Figure 1. Western blot analysis of DNMT3L using anti-DNMT3L antibody (A04214-3). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat testis tissue lysates,
Lane 2: rat kidney tissue lysates,
Lane 3: mouse testis tissue lysates,
Lane 4: mouse kidney 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-DNMT3L antigen affinity purified polyclonal antibody (Catalog # A04214-3) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for DNMT3L at approximately 44 kDa. The expected band size for DNMT3L is at 44 kDa.

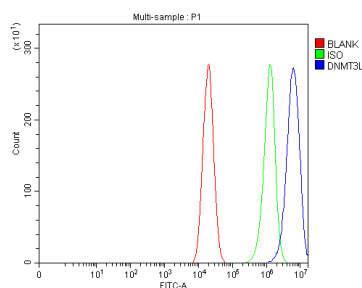


Figure 2. Flow Cytometry analysis of Caco-2 cells using anti-DNMT3L antibody (A04214-3).

Overlay histogram showing Caco-2 cells stained with A04214-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-DNMT3L Antibody (A04214-3, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 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 (Red line) was also used as a control.

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