BOSTER BIOLOGICAL TECHNOLOGY
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Anti-MBD1 Antibody Picoband®

Catalog Number: A02336-1

About MBD1

MBD1 (Methyl-CpG-Binding Domain Protein 1), also known as PCM1 or CXXC3, is a protein that in humans is encoded by the MBD1 gene. Using PCR on a hybrid panel and FISH, Hendrich et al. (1999) mapped the MBD1 gene to chromosome 18q21, 2.1 cM distal to MBD2. Using yeast 2-hybrid analysis, reciprocal immunoprecipitation analysis, and protein pull-down assays, Fujita et al. (2003) showed that MBD1 interacted directly with MCAF. Deletion analysis revealed that the C-terminal transcriptional repressor domain (TRD) of MBD1 interacted with a conserved C-terminal domain of MCAF. Reporter gene assays showed that MCAF increased the repressive function of the isolated TRD of MBD1 against SP1. Chromatin immunoprecipitation analysis revealed that MBD1 linked MCAF to methylated promoters. Uchimura et al. (2006) found that MBD1 was multiply sumoylated in HeLa cells. Sumoylation did not alter the intracellular localization of MBD1 at nuclear foci in C-33A human cervical cancer cells.

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Overview

Product Name	Anti-MBD1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MBD1 Antibody Picoband® catalog # A02336-1. Tested in Flow Cytometry, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, 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	Q9UIS9

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human MBD1.

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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	Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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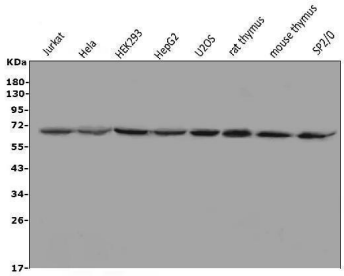
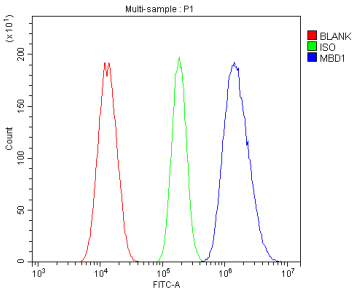
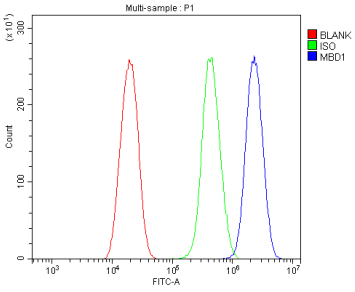
Anti-MBD1 Antibody Picoband® (A02336-1) Images



Western blot analysis of MBD1 using anti-MBD1 antibody (A02336-1). 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 Jurkat whole cell lysates, Lane 2: human HELA whole cell lysates, Lane 3: human HEK293 whole cell lysates, Lane 4: human HEPG2 whole cell lysates, Lane 5: human U20S whole cell lysates, Lane 6: rat thymus tissue lysates, Lane 7: mouse thymus tissue lysates, Lane 8: mouse SP2/0 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-MBD1 antigen affinity purified polyclonal antibody (Catalog # A02336-1) 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 MBD1 at approximately 67KD. The expected band size for MBD1 is at 67KD.



Flow Cytometry analysis of A549 cells using anti-MBD1 antibody (A02336-1). Overlay histogram showing A549 cells stained with A02336-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MBD1 Antibody (A02336-1, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of U20S cells using anti-MBD1 antibody (A02336-1). Overlay histogram showing U20S cells stained with A02336-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MBD1 Antibody (A02336-1, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-MBD1 Antibody

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