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Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3)

Catalog # ABO14970

Specification

Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) - Product Information

Application	**WB**
Primary Accession	P51608
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) . Tested in WB applications. This antibody reacts with Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) - Additional Information

Gene ID 4204

Other Names
Methyl-CpG-binding protein 2, MeCp-2 protein, MeCp2, MECP2

Calculated MW
75 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.

Immunogen
E.coli-derived human MECP2 recombinant protein (Position: K119-R453).

Purification
Immunogen affinity purified.

Storage	**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.**

Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) - Protein Information

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Name MECP2

Function
Chromosomal protein that binds to methylated DNA. It can bind specifically to a single methyl-CpG pair. It is not influenced by sequences flanking the methyl-CpGs. Mediates transcriptional repression through interaction with histone deacetylase and the corepressor SIN3A. Binds both 5-methylcytosine (5mC) and 5-hydroxymethylcytosine (5hmC)- containing DNA, with a preference for 5-methylcytosine (5mC).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q9Z2D6}. Note=Colocalized with methyl-CpG in the genome. Colocalized with TBL1X to the heterochromatin foci.

Tissue Location
Present in all adult somatic tissues tested.

Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) - Images

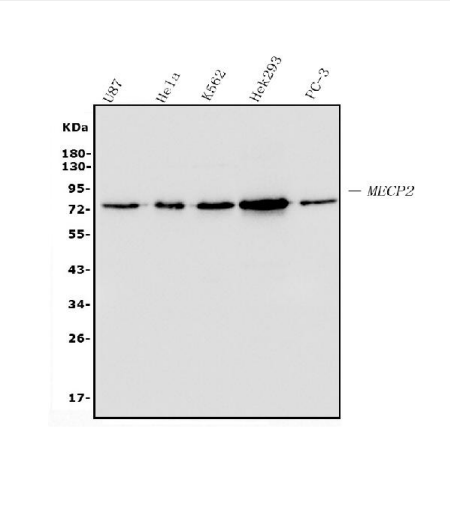

Figure 1. Western blot analysis of MECP2 using anti-MECP2 antibody (M00047-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human U87 whole cell lysates,
Lane 2: human Hela whole cell lysates,

Lane 3: human K562 whole cell lysates,
Lane 4: human HEK293 whole cell lysates,
Lane 5: human PC-3 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 mouse anti-MECP2 antigen affinity purified monoclonal antibody (Catalog # M00047-3) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for MECP2 at approximately 75KD. The expected band size for MECP2 is at 75KD.

Anti-MECP2 Antibody Picoband™ (monoclonal, 2G3) - Background

MECP2 (methyl CpG binding protein 2) is agenethat encodes theproteinMECP2. It is mapped to Xq28. DNA methylation is the major modification of eukaryotic genomes and plays an essential role in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. In contrast to other MBD family members, MECP2 is X-linked and subject to X inactivation. MECP2 is dispensible in stem cells, but is essential for embryonic development. MECP2 gene mutations are the cause of most cases of Rett syndrome, a progressive neurologic developmental disorder and one of the most common causes of cognitive disability in females. Alternative splicing results in multiple transcript variants encoding different isoforms.