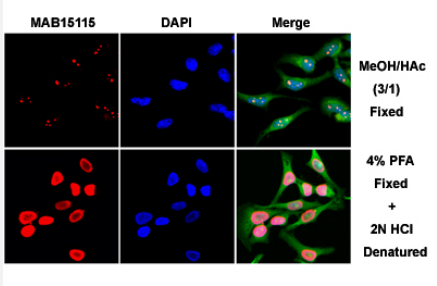
RecomAb™

5-methylcytosine (5-mC) monoclonal antibody, clone RM231

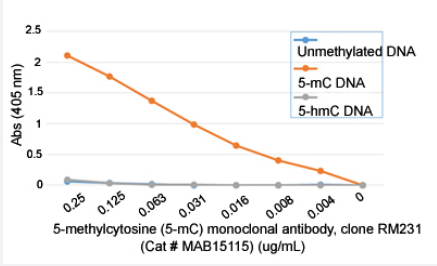
Catalog # MAB15115 Size 50 ug

Applications



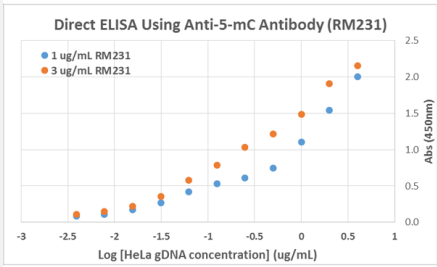
Immunocytochemistry

Immunocytochemistry staining of HeLa cells with 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat # MAB15115) (Red). Actin filaments have been labeled with fluorescein phalloidin (Green), and nuclei stained with DAPI (Blue).



Enzyme-linked Immunoabsorbent Assay

ELISA analysis of single stranded DNA with 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat # MAB15115). The plate was coated with streptavidin and then biotinylated single stranded unmethylated DNA, 5-Methylcytosine (5-mC) DNA, and 5-Hydroxymethylcytosine (5-hmC) DNA. A serial dilution of MAB15115 was used as the primary antibody, and an alkaline phosphatase conjugated anti-rabbit IgG as the secondary antibody.



Enzyme-linked Immunoabsorbent Assay

Direct ELISA of HeLa cell genomic DNA using 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat# MAB15115). The plate was directly coated with different concentrations of genomic DNA isolated from HeLa cells. 1 ug/mL or 3 ug/mL of Cat# MAB15115 was used as the primary antibody, and a HRP conjugated anti-rabbit IgG as the secondary antibody.

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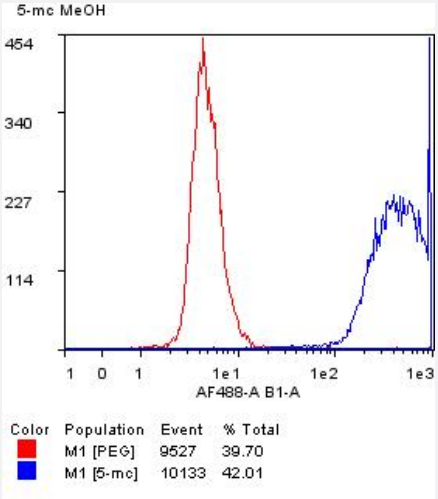
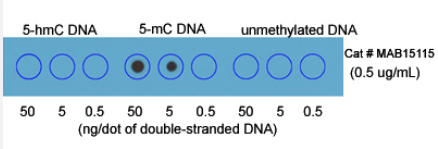


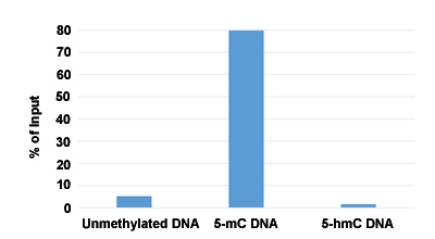
Enzyme-linked Immunoabsorbent Assay

Flow Cytometry analysis of 5-mC expression in HEK293 cells using 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat# MAB15115). The cells were fixed with ice-cold MeOH, permeabilized with 0.5% Triton X-100, denatured with 2N HCl, then stained with Cat# MAB15115 (anti-5-mC, Blue) or with a negative control antibody (RM105, Red).



Dot Blot

Dot blot analysis of double stranded DNA with 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat # MAB15115). The membrane was pre-spotted with 50, 5, and 0.5 ng/dot of double stranded 5-Hydroxymethylcytosine (5-hmC) DNA, 5-Methylcytosine (5-mC) DNA, and unmethylated DNA. The pre-spotted membrane was then blotted with MAB15115.



Methylated DNA Immunoprecipitation

Methylated DNA Immunoprecipitation (MeDIP) analysis of 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat # MAB15115) at a 2:1 DNA:Ab ratio. 1 ng of unmethylated, 5-Methylcytosine (5-mC) or 5-Hydroxymethylcytosine (5-hmC) DNA standard (897 bp) was spiked in 1 ug of genomic DNA isolated from HeLa cells as the control. Realtime PCR was then performed to determine the capture of DNA standard as in % of input.

Specification

Product Description	Rabbit recombinant monoclonal antibody raised against 5-methylcytosine (5-mC).
Antibody Species	Rabbit
Immunogen	Original antibody is raised against 5-methylcytosine conjugated with BSA.
Sequence	N/A
Specificity	This antibody reacts to 5-methylcytosine in both single-stranded and double-stranded DNA. No cross reactivity with non-methylated cytosine and hydroxymethylcytosine in DNA.

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Form	Liquid
Purification	Protein A affinity purification
Isotype	IgG
Recommend Usage	Dot Blot (0.5-2 ug/mL) ELISA (0.1-1 ug/mL) Immunocytochemistry (0.5-2 ug/mL) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) Methylated DNA Immunoprecipitation (0.2-2 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (50% glycerol, 1% BSA, 0.09% sodium azide)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

- Immunocytochemistry

  Immunocytochemistry staining of HeLa cells with 5-methylcytosine (5-mC) monoclonal antibody, clone RM231 (Cat # MAB15115) (Red). Actin filaments have been labeled with fluorescein phalloidin (Green), and nuclei stained with DAPI (Blue).

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Publication Reference

- Discovery of a new predominant cytosine DNA modification that is linked to gene expression in malaria parasites.

Hammam E, Ananda G, Sinha A, Scheidig-Benatar C, Bohec M, Preiser PR, Dedon PC, Scherf A, Vembar SS.

Nucleic Acids Research 2020 Jan; 48(1):184.

Application: IP, WB, Parasites, DNA, Parasites

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