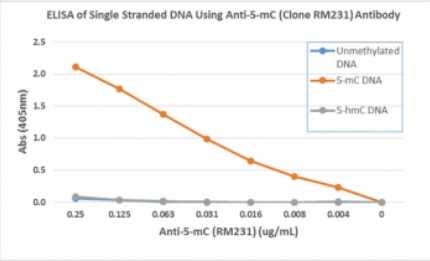
Recombinant 5mC Antibody [clone RM231] (R20245)

Catalog No.	Formulation	Size
R20245-50UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	50 ug

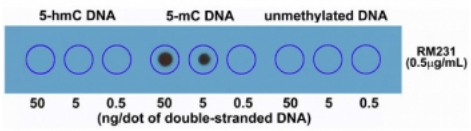
Recombinant RABBIT MONOCLONAL

Bulk quote request

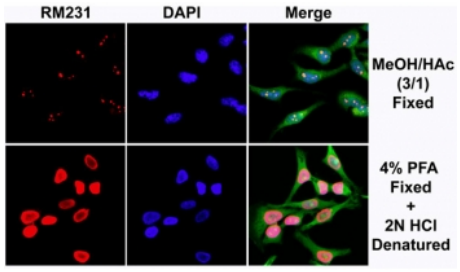
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM231
Purity	Protein A purified from animal origin-free supernatant
Gene ID	N/A
Applications	Dot blot: 0.5-2ug/ml ELISA: 0.1-1ug/ml Immunocytochemistry: 0.5-2ug/ml MeDIP: 0.2ug/ml- 2ug/ml
Limitations	This recombinant 5mC antibody is available for research use only.



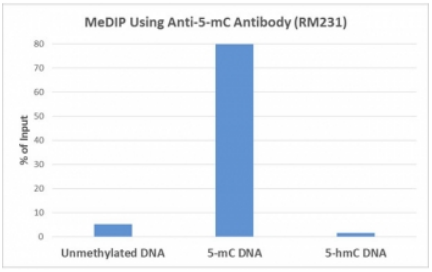
ELISA of single stranded DNA using recombinant 5mC antibody. The plate was coated with streptavidin and then biotinylated single stranded unmethylated DNA, 5-Methylcytosine (5-mC) DNA, and 5-Hydroxymethylcytosine (5-hmC) DNA. A serial dilution of RM231 was used as the primary, and an anti-rabbit IgG AKP secondary.



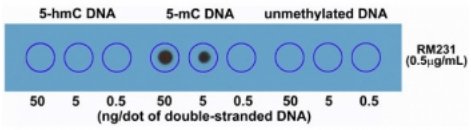
Direct ELISA of HeLa cell genomic DNA using recombinant 5mC antibody. The plate was directly coated with different concentrations of genomic DNA isolated from HeLa cells. RM231 mAb at 1 ug/ml or 3 ug/ml was used as the primary, and anti-rabbit IgG HRP as secondary.



ICC/IF staining of HeLa cells recombinant 5mC antibody (red). Actin filaments have been labeled with fluorescein phalloidin (green), and nuclei stained with DAPI (blue).



MeDIP was performed using recombinant 5mC antibody 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 1ug 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.



Dot blot of double stranded DNA using recombinant 5mC antibody. 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 RM231 mAb.

Description

This recombinant 5mC antibody reacts to 5-methylcytosine in both single-stranded and double-stranded DNA. No cross reactivity with non-methylated cytosine and hydroxymethylcytosine in DNA.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant 5mC antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

BSA-conjugated 5-methylcytosine was used as the immunogen for this recombinant 5mC antibody.

Storage

Store the recombinant 5mC antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

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