ANTI-5-METHYLCYTOSINE

Cat. Nos.
A3001-50 (50 µg in 50 µl volume)
A3001-200 (200 µg in 200 µl volume)

ZYMO RESEARCH
The Beauty of Science is to Make Things Simple

Storage: 0-4°C or -80°C (long-term)

Product Information

Description:
The ability to detect and quantify DNA methylation (i.e., 5-methylcytosine) efficiently and accurately has become essential for the study of cancer, gene expression, genetic diseases, as well as many other important aspects of epigenetics.

The mouse Anti-5-Methylcytosine monoclonal antibody (clone 10G4) has been developed to facilitate differentiation between methylated and non-methylated cytosines in DNA. Specificity of this clone is to 5-methylcytosines in single stranded DNA with no detectable cross-reactivity to non-methylated cytosines. The antibody has proven to be a valuable tool in the characterization of DNA methylation and has been successfully used for immunopreciptiation-based assays such as Methylated DNA Immunoprecipitation (MeIP).

Product Type:
Monoclonal Antibody

Format:
Purified

Clone:
10G4

Source:
Mouse

Isotype:
IgG1

Specificity:
5-Methylcytosine in single stranded DNA from any source including human, rat, mouse, plants, etc. and 5-Methylcytidine

Approximate Protein Concentration:
1 mg/ml

Buffer Solution:
Antibody is provided in PBS (Phosphate Buffered Saline, pH 7.4) with 0.01% Thimerosal as a preservative.

Storage:
Store at 0-4°C with prolonged storage at -80°C. Avoid repeated freeze/thawing.

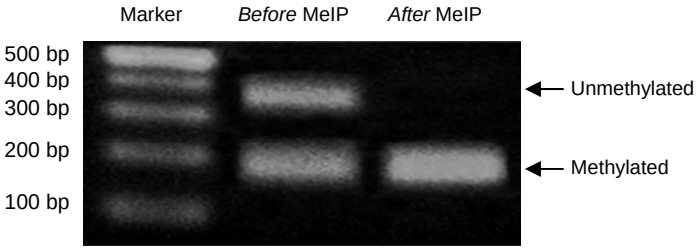
Stability/Shelf Life:
One year from the date of receipt.

Handling Recommendations:
For maximum recovery, centrifuge the vial of antibody prior to removing the cap. This product contains Thimerosal. Follow the safety guidelines and rules of your research institution or facility for usage and waste-related information.

Application and Usage Information

Application		Recommended Dilution
ELISA	Yes	1:500-1:1,000
Flow Cytometry	N/D	N/A
Immunoblotting	Yes	N/A
Immunofluorescence	Yes	N/A
Immunohistology	N/D	N/A
Immunoprecipitation (IP) of Methylated DNA	Yes	2-4 µg per IP
Western Blotting	N/D	N/A

N/A = Data Not Available. N/D = Not Determined



Methylated DNA is efficiently enriched using the 5-Methylcytosine antibody. DNA was immunoprecipitated using the mouse Anti-5-Methylcytosine 10G4 antibody from a mixed methylated/non-methylated DNA population. This population is comprised of a mixture of non-methylated plasmid DNA and a methylated version of the same plasmid containing a point mutation that introduces an *Nco* I restriction site. After immunoprecipitation of the mixture, the region of DNA containing the restriction site was amplified by PCR, digested with *Nco* I, and visualized in a 2.0% (w/v) agarose/TAE/EtBr gel. Non-methylated DNA remains un-cut, whereas the methylated DNA is cut by *Nco* I. The image above demonstrates specific enrichment of methylated versus non-methylated DNA by the Anti-5-Methylcytosine 10G4 antibody.

Related Products:

Product Description	Cat. No.	Size
Methylated-DNA IP Kit	D5101	10 preps.
Zymo*Taq*™ DNA Polymerase	E2001 E2002	50 rxns. 200 rxns.
Zymo*Taq*™ PreMix	E2003 E2004	50 rxns. 200 rxns.
ChIP DNA Clean & Concentrator™	D5201	50 preps.
EZ DNA Methylation-Direct™ Kit	D5020 D5021 D5022 D5023	50 rxns. 200 rxns. 2x96 rxns. 2x96 rxns.

Version 1.0.1

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