

# Anti-5-Methylcytosine

**Cat. Nos.** A3002-15 (0.5 µg/µl, 15 µl)  
 A3002-30 (0.5 µg/µl, 30 µl)  
 A3002-50 (0.5 µg/µl, 50 µl)  
 A3002-200 (0.5 µg/µl, 200 µl)

**Storage:** -20 °C or -80 °C (long-term)



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## 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 7D21) 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 or hydroxymethylated cytosines. The antibody has proven to be a valuable tool in the characterization of DNA methylation and has been successfully used for immunoprecipitation-based assays, ELISAs and immunofluorescence assays.

**Product Type:** Monoclonal Antibody

**Format:** Purified

**Clone:** 7D21

**Source:** Mouse

**Isotype:** IgG1

**Approximate Protein Concentration:** 0.5 µg/ul

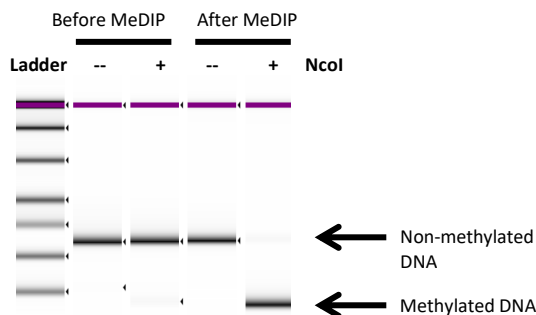
**Specificity:** 5-Methylcytosine in single-stranded DNA from any source including human, rat, mouse, plants, etc.

**Buffer Solution:** Antibody is provided in PBS (Phosphate Buffered Saline, pH 7.4) with 0.05% Sodium azide as a preservative.

**Storage:** Store at -20 °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 Sodium azide. Follow the safety guidelines and rules of your research institution or facility for usage and waste-related information.



**Efficient enrichment of methylated DNA using Methylated-DNA IP Kit.** DNA comprised of a mixture of methylated/non-methylated DNA (1:4 ratio) was immunoprecipitated following Cat. No. D5101 protocol. Digestion of amplicons with *NcoI* produced two 175 bp fragments for methylated DNA control or one 350 bp fragment for non-methylated control. The results show an efficient enrichment of methylated DNA vs. non-methylated DNA in immunoprecipitated DNA (After MeDIP) compared to non-precipitated (Before MeDIP) samples. The products were visualized using D1000 Tape on TapeStation 2200 (Agilent, Santa Clara, CA).

### Application and Usage Information:

Application	Yes	Recommended Dilution
ELISA	Yes	≥ 1:4,000
Flow Cytometry	N/D	N/A
Immunoblotting	Yes	≥ 1:5,000
Immunofluorescence	Yes	≥ 1:1,000
Immunohistology	N/D	N/A
Immunoprecipitation (IP)	Yes	1 to 2 µg per IP
Western Blotting	N/D	N/A

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

### Also Available:

Product Name	Size	Catalog number
5-mC DNA ELISA Kit	1 x 96 2 x 96	D5325 D5326
Quest™ 5-hmC DNA ELISA Kit	1 x 96 2 x 96	D5425 D5426
EZ DNA Methylation™ Kit	50	D5001
	200	D5002
	2 x 96	D5003
	2 x 96	D5004
EZ DNA Methylation-Gold™ Kit	50	D5005
	200	D5006
	2 x 96	D5007
	2 x 96	D5008
EZ DNA Methylation-Direct™ Kit	50	D5020
	200	D5021
	2 x 96	D5022
	2 x 96	D5023
EZ DNA Methylation-Startup™ Kit	1 Kit	D5024
EZ Bisulfite DNA Clean-up Kit™	50	D5025
	200	D5026
	2 x 96	D5027
	2 x 96	D5028
Universal Methylated DNA Standard	1 set	D5010
Universal Methylated Human DNA Standard	1 set	D5011
Universal Methylated Mouse DNA Standard	1 set	D5012
Human HCT116 DKO Methylation Standards	1 set	D5014
Human HCT116 DKO Non-methylated DNA Standard	5 µg	D5014-1
Human HCT116 DKO Methylated DNA Standard	5 µg	D5014-2
Bisulfite Converted Universal Methylated Human DNA Standard	1 set	D5015
<i>E. coli</i> Non-methylated Genomic DNA	5 µg	D5016
Methylated-DNA IP Kit	10	D5101
ChIP DNA Clean & Concentrator™	50	D5201
	50	D5205
ZymoTaq™ DNA Polymerase	50	E2001
	200	E2002
ZymoTaq™ PreMix (2X concentrated)	50	E2003
	200	E2004
CpG Methylase (M.SssI)	200 units	E2010
	400 units	E2011

### Trademarks and Disclaimers:

™ Trademarks of Zymo Research Corporation.

This product is for research use only and should only be used by trained professionals. Wear protective gloves and eye protection. This product contains Sodium azide. Follow the safety guidelines and rules of your research institution or facility.

Version 1.0.2

## ZYMO RESEARCH CORP.

Phone: (949) 679-1190 ▪ Toll Free: (888) 882-9682 ▪ Fax: (949) 266-9452 ▪ info@zymoresearch.com ▪ www.zymoresearch.com