



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Mouse Anti-5-Methylcytidine With HRP-conjugated Secondary Antibody

Catalog No.
DS-MB-00003

Target Species
Broad

Isotype
IgG1

Preparation

Fusion Partners: Spleen cells from immunized Balb/c mice were fused with cells of the Sp2/0-Ag 14 myeloma cell line.

Formulation

Product Form: Purified

Product Type: Monoclonal Antibody

Buffer Solution: Phosphate buffered saline

Preservative Stabilizers: 0.01% Thiomersal

Approx. Protein Concentrations: IgG concentration 1.0 mg/ml

Specificity

DS-MB-00003 recognizes the modified base 5-methylcytidine (5-MeCyd) found in DNA of plants and vertebrates. DNA methylation is a DNA modification process, which is involved in the control of gene expression.

Reports suggest that in tumors, DNA is frequently globally hypomethylated compared to the DNA from normal tissue.

DS-MB-00003 has been developed to discriminate between the modified base 5-MeCyd and the normal counterpart cytosine.

DS-MB-00003 has been reported for use in Methylated DNA immunoprecipitation (MeDIP).

Species Cross Reactivity: Reacts with Human, Rat, Mouse

N.B. Antibody reactivity and working conditions may vary between species.

Storage

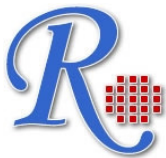
Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life: 18 months from date of dispatch.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry(1)	•			
Immunohistology - Frozen	•			
Immunohistology – Paraffin (2)	•			
Immunohistology - Resin	•			
Elisa			•	
Western Blotting			•	
Immunofluorescence	•			
Immunoblotting	•			
Methylated DNA Immunoprecipitation	•			

Note: Other applications have not been tested. Optimal dilutions should be determined.

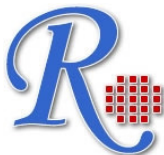
(1) Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul. Membrane permeabilization may be required for this application. Cell pretreatment before staining is described in reference 4. Giraldo, A. M. et al.

(2) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH6.0 is recommended for this purpose.

Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

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Reference

1. Reynaud, C. *et al.* (1992) Monitoring of urinary excretion of modified nucleosides in cancer patients using a set of six monoclonal antibodies. *Cancer Lett.* 61: 255-262.
2. Habib, M. *et al.* (1999) DNA Global Hypomethylation in EBV - Transformed Interphase Nuclei. *Exp. Cell. Res.* 249: 46-53.
3. Hernandez-Blazquez, F. *et al.* (2000) Evaluation of global DNA hypomethylation in human colon cancer tissues by immunohistochemistry and image analysis. *Gut.* 47: 689-693.
4. Giraldo, A. M. *et al.* (2007) DNA methylation and histone acetylation patterns in cultured bovine fibroblasts for nuclear transfer. *Mol. Reprod. Dev.* 74: 1514-1524.
5. Shen, R. *et al.* (2009) Reversibility of aberrant global DNA and estrogen receptor-alpha gene methylation distinguishes colorectal precancer from cancer. *Int J Clin Exp Pathol.* 2:21-33.
6. Pontes, O. *et al.* (2007) Postembryonic establishment of megabase-scale gene silencing in nucleolar dominance. *PLoS One.* 2: e1157.
7. Yang, F. *et al.* (2010) Trichostatin A and 5-azacytidine both cause an increase in global histone H4 acetylation and a decrease in global DNA and H3K9 methylation during mitosis in maize. *BMC Plant Biol.* 10: 178.
8. Suter, J.D. *et al.* (2010) Label-free DNA methylation analysis using opto-fluidic ring resonators. *Biosens Bioelectron.* 26: 1016-20.

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