

POLYCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. BAM-70-203-EX

Anti-Dnmt1 (1037-1386), affinity-purified, ChIP grade

BACKGROUND

Dnmt1 (DNA (cytosine-5-)-methyltransferase 1) has a role in the establishment and regulation of tissue-specific patterns of methylated cytosine residues (epigenetics). Hypermethylation in promoter regions is associated with repression of gene expression. Aberrant methylation patterns are associated with certain human tumors and developmental abnormalities (1, 2). This antibody was raised by Prof. S. Tajima of Osaka Univ. (3, 4).

Product type	Primary antibodies
Host	Rabbit
Source	
Form	Liquid
	1 mg/ml in PBS, 50% glycerol, 0.05% sodium azide, (and trace of ammonium sulfate)
Volume	50 µg
Concentration	
Specificity	
Antigen	Recombinant mouse Dnmt1 (amino acids 1037-1386) purified by SDS-PAGE
Isotype	

Application notes	WB, IP, IF
	Recommended use

Recommended dilutions

Western blotting: 0.2 - 1 µg/ml

Immunoprecipitation. Especially good for denatured protein and useful for ChIP assays. One µg of the antibody can precipitates 0.5 - 1.0 µg of Dnmt1.

Indirect immuno-fluorescence staining (2,000 - 5,000 fold dilution). Background can be lowered by treatment of sample with SDS/TritonX-100 mixture (1:5 weight ratio).

Optimal dilutions/concentrations should be determined by the end user.

Data Link: UniProtKB/Swiss-Prot [P13864](#) (DNMT1_MOUSE)

Staining Pattern

Cross reactivity	mouse, human, Xenopus
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Storage	-20°C (long period; -80°C)
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References	<ol style="list-style-type: none"> 1) Di Croce L <i>et al</i> "Methyltransferase recruitment and DNA hypermethylation of target promoters by an oncogenic transcription factor" <i>Science</i> 295: 1079-82 (2002) PMID: 11834837 2) Rhee I <i>et al</i> "DNMT1 and DNMT3b cooperate to silence genes in human cancer cells" <i>Nature</i> 416: 552-6 (2002) PMID: 11932749 3) Takagi H <i>et al</i> "Overexpression of DNA methyltransferase in myoblast cells accelerates myotube formation" <i>Eur J Biochem</i> 231: 282-91 (1995) PMID: 7635139 4) Inano K <i>et al</i> "Maintenance-type DNA methyltransferase is highly expressed in post-mitotic neurons and localized in the cytoplasmic compartment" <i>J Biochem</i> 128: 315-21 (2000) PMID: 10920268
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(This product was used in Ref. 3 and 4.)

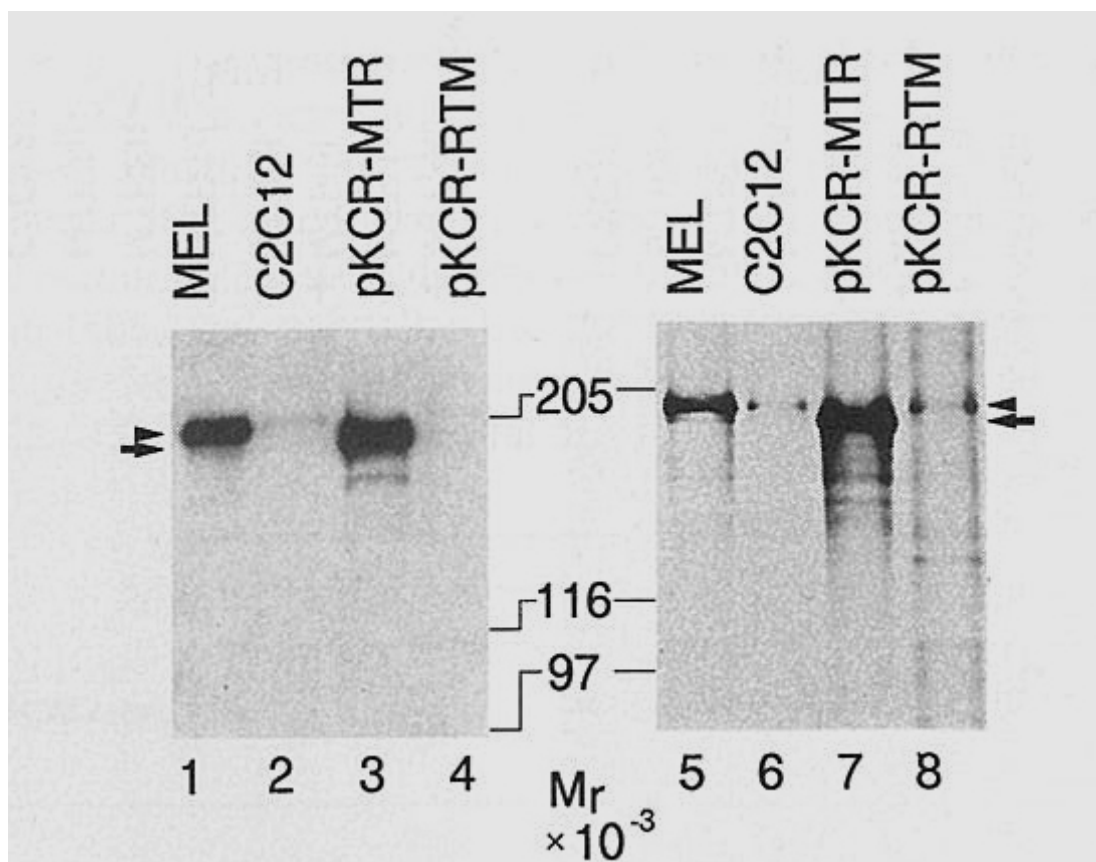


Figure Immunodetection of Dnmt1

1. Murine erythroleukemia cells, MEL11A2
2. Mouse myoblast cells, C2C12
3. C2C12 carrying Dnmt1 overexpressing plasmid
4. C2C12 carrying negative control plasmid
- 1-4; Western blotting.
- 5~8; Immunoprecipitation of SDS denatured Dnmt1.

Related Products

BAM-70-201-EX	Anti-Dnmt1 (1-248) antibody
BAM-70-205-EX	Anti-Dnmt3b antibody

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