

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

70-203 50ug

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).

Applications

- 1) **Western blotting** (0.2~1 ug/ml)
- 2) **Immunoprecipitation and ChIP**. Especially good for denatured protein and useful for ChIP assays (with mouse embryonic stem cells as an example). One ug of the antibody can precipitates 0.5~1.0 ug of Dnmt1.
- 3) **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).

Antigen: Recombinant mouse Dnmt1 (amino acids 1037-1386) purified by SDS-PAGE

Antibody: Affinity-purified with the recombinant Dnmt1(1037-1386)

Reactivity: mouse, human, Xenopus

Form: 1 mg/ml in PBS, 50% glycerol, 0.05% sodium azide, (and trace of ammonium sulfate)

Storage: -20°C (long period: -80°C)

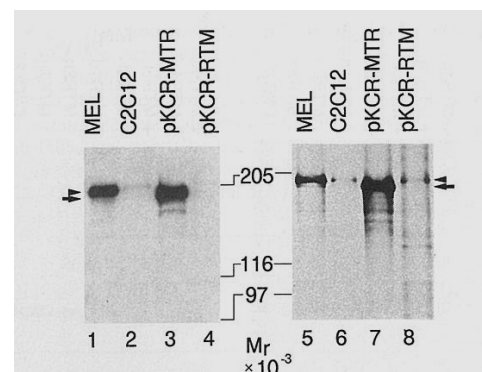
Data Link UniProtKB/Swiss-Prot [P13864](#) (DNMT1_MOUSE)

References: This product was used in Ref. 3 and 4

1. Di Croce L *et al* "Methyltransferase recruitment and DNA hypermethylation of target promoters by an oncogenic transcription factor" *Science* **295**: 1079-82 (2002) PMID: [11834837](#)
2. Rhee I *et al* "DNMT1 and DNMT3b cooperate to silence genes in human cancer cells" *Nature* **416**: 552-6 (2002) PMID: [11932749](#)
3. Takagi H *et al* "Overexpression of DNA methyltransferase in myoblast cells accelerates myotube formation" *Eur J Biochem* **231**: 282-91 (1995) PMID: [7635139](#)
4. Inano K *et al* "Maintenance-type DNA methyltransferase is highly expressed in post-mitotic neurons and localized in the cytoplasmic compartment" *J Biochem* **128**: 315-21 (2000) PMID: [10920268](#)

Figure Immunodetection of Dnmt1

1. Murine erythrolekemia 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 product: # [70-201](#) Anti-Dnmt1 (1-248) antibody,

affinity-purified (rabbit polyclonal), # [70-205](#) Anti-Dnmt3b antibody, affinity-purified (rabbit polyclonal)