

DNMT1 antibody (pAb)

Catalog Nos: 39905, 39906

RRID: AB_2793389

Isotype: IgG

Application(s): IF, IP, WB

Reactivity: Human

Quantities: 100 µg, 10 µg

Purification: Protein A Chromatography

Host: Rabbit

Concentration: 1 µg/µl

Molecular Weight: 185 kDa

Background: DNMT1 (DNA (cytosine-5)-methyltransferase) proteins are involved in DNA methylation in which a methyl group is added to a cytosine residue on DNA, commonly at the C5 position of a CpG dinucleotide. Three families of DNMTs have been identified: DNMT1, DNMT2, and DNMT3 (comprised of DNMT3A and DNMT3B).

DNMT1 is the most abundant DNMT in somatic cells and shows a preference for methylating hemi-methylated DNA. It is considered to be a maintenance DNA methyltransferase that is important in the maintenance of specific patterns of methylation throughout cellular divisions. Methylation of mammalian DNA has long been recognized to play a major role in a number of cellular functions such as embryonic development, genetic imprinting, X chromosome inactivation and the control of gene expression. DNA methylation is generally associated with transcriptional repression.

Immunogen: This DNMT1 antibody was raised against a recombinant protein corresponding to amino acids 1-110 of human DNMT1.

Buffer: Purified IgG in PBS with 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:

Applications Validated by Active Motif:

IP: 10 µg per IP

WB*: 0.5 - 2 µg/ml dilution

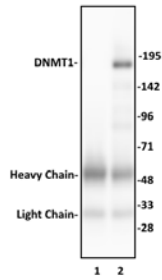
IF: 1:500 dilution

*Note: many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western Blot.

For DNMT1, we also offer AbFlex[®] DNMT1 Recombinant Antibody (rAb). For details, see Catalog No. 91175.

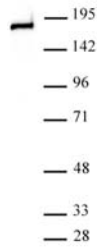
Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



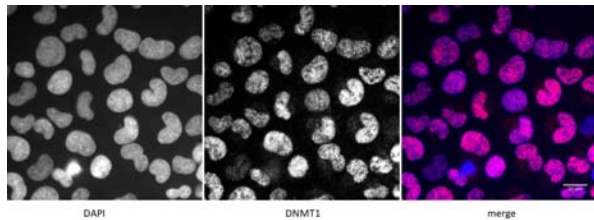
DNMT1 antibody (pAb) tested by Immunoprecipitation.

10 µg of DNMT1 antibody was used to immunoprecipitate DNMT1 from 250 µg of HeLa nuclear cell extract (lane 2). 10 µg of rabbit IgG was used as a negative control (lane 1). The immunoprecipitated protein was detected by Western blotting using the DNMT1 antibody at a dilution of 0.5 µg/ml.



DNMT1 antibody (pAb) tested by Western blot.

Nuclear extract of HeLa cells (20 µg per lane) probed with DNMT1 antibody (pAb) at a dilution of 0.5 µg/ml.



Detection of DNMT1 by immunofluorescence.

U2OS cells were stained with DNMT1 antibody at a dilution of 1:500. Left panel: DAPI. Middle panel: DNMT1 antibody staining. Right panel: merge.