

DATASHEET

DNMT1 Rabbit Polyclonal Antibody

CAT. NO. APA17451

KEY FEATURES

Target	DNMT1	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC, IP	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at -20°C

BACKGROUND

DNA methyltransferase that methylates CpG residues . Preferentially methylates hemimethylated DNA . Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance . Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication . It is responsible for maintaining methylation patterns established in development . DNA methylation is coordinated with methylation of histones . Mediates transcriptional repression by direct binding to HDAC2 . In association with DNMT3B and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9 .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:200
IF/ICC	1:50 - 1:200
IP	1:50 - 1:100

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to DNMT1
Specificity	Recognizes endogenous levels of DNMT1 protein.
Antibody Type	Primary antibody
Immunogen	Recombinant protein of human DNMT1
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 144; Observed: 200 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	AIM; CXXC9; DNMT; DNA (cytosine-5)-methyltransferase 1; Dnmt1; CXXC-type zinc finger protein 9; DNA methyltransferase HsaI; DNA MTase HsaI; M.HsaI; MCMT
Gene Symbol	DNMT1
Entrez Gene	1786(Human); 13433(Mouse)
SwissProt	P26358(Human); P13864(Mouse); Q9Z330(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

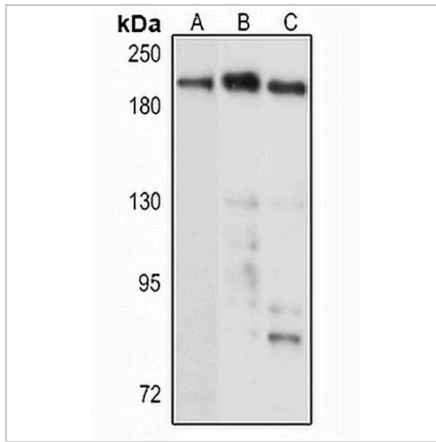
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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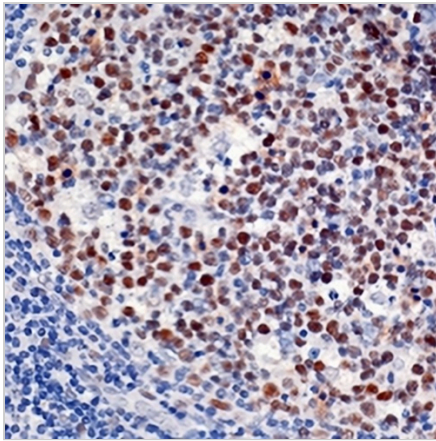
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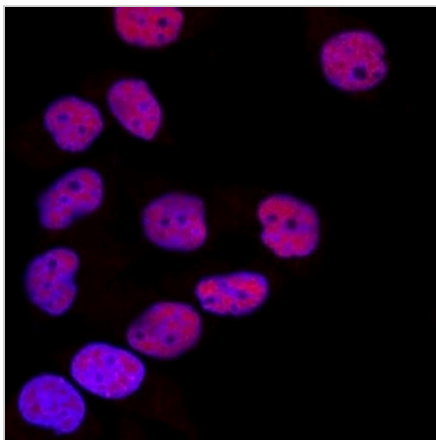
DATA



Western blot analysis of DNMT1 expression in HeLa (A), mouse brain (B), rat brain (C) whole cell lysates. (Predicted band size: 144; 183; 184 kD; Observed band size: 200 kD)



Immunohistochemical analysis of DNMT1 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of DNMT1 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.