



Product datasheet

Anti-Dnmt1 antibody ab2849

[1 References](#) [1 Image](#)

Overview

Product name	Anti-Dnmt1 antibody
Description	Rabbit polyclonal to Dnmt1
Host species	Rabbit
Specificity	Detects DNA methyltransferase 1 (Dnmt1). We have data to indicate that this antibody may not cross react with Mouse. However, this has not been conclusively tested and expression levels may vary in certain cell lines/tissues.
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic peptide corresponding to Human Dnmt1 aa 171-185. Sequence: AKGPAKRKPQEES (Peptide available as ab4920)
	 Run BLAST with  Run BLAST with
Positive control	HeLa cell lysate

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab2849** in the following tested applications.

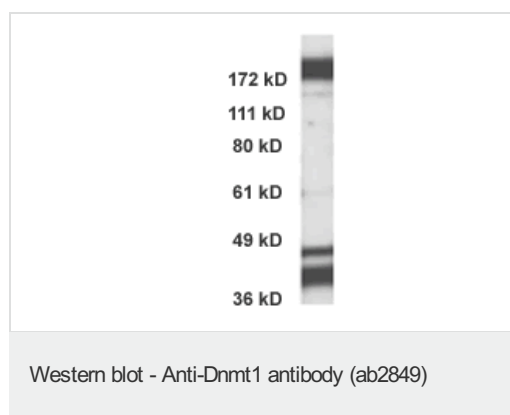
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 180 kDa (predicted molecular weight: 183 kDa). Can be blocked with Dnmt1 peptide (ab4920) . A doublet between 40 and 45 kDa is also seen on Western blots using this antibody.

Target

Function	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.
Tissue specificity	Ubiquitous; highly expressed in fetal tissues, heart, kidney, placenta, peripheral blood mononuclear cells, and expressed at lower levels in spleen, lung, brain, small intestine, colon, liver, and skeletal muscle. Isoform 2 is less expressed than isoform 1.
Sequence similarities	Belongs to the C5-methyltransferase family. Contains 2 BAH domains. Contains 1 CXXC-type zinc finger.
Domain	The N-terminal part is required for homodimerization and acts as a regulatory domain.
Post-translational modifications	Sumoylated; sumoylation increases activity.
Cellular localization	Nucleus.

Images



Rabbit polyclonal to Dnmt1 on HeLa cell nuclear extract.

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