

Product datasheet

Anti-Dnmt1 antibody [EPR3522] (Phycoerythrin) ab208999

Recombinant RabMAb

[2 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-Dnmt1 antibody [EPR3522] (Phycoerythrin) |
| Description | Rabbit monoclonal [EPR3522] to Dnmt1 (Phycoerythrin) |
| Host species | Rabbit |
| Conjugation | Phycoerythrin. Ex: 488nm, Em: 575nm |
| Tested applications | Suitable for: ICC/IF, Flow Cyt |
| Species reactivity | Reacts with: Human |
| Immunogen | Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human Dnmt1 aa 1600 to the C-terminus. The exact sequence is proprietary. Database link: P26358 |
| Positive control | Flow Cyt: HeLa cells ICC/IF: HeLa cells |
| General notes | Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents . This product is a recombinant rabbit monoclonal antibody . |

Properties

| | |
|-----------------------------|--|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at 4°C (stable for up to 12 months). Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark. |
| Storage buffer | pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 1% BSA, PBS |
| Purity | Protein A purified |
| Clonality | Monoclonal |
| Clone number | EPR3522 |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab208999** 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 |
|-------------|-----------|---|
| ICC/IF | | 1/250. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min) |
| Flow Cyt | | 1/2500. |

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.

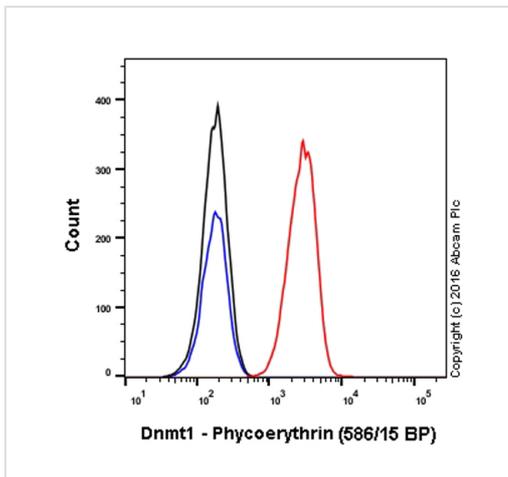
Post-translational modifications

Sumoylated; sumoylation increases activity.

Cellular localization

Nucleus.

Images



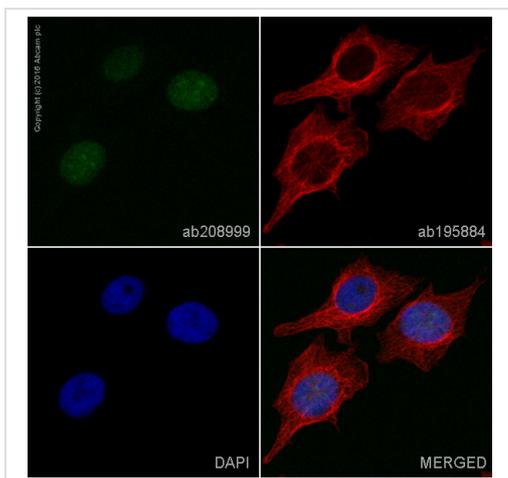
Flow Cytometry - Anti-Dnmt1 antibody [EPR3522]
(Phycoerythrin) (ab208999)

Overlay histogram showing HeLa cells stained with ab208999 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab208999, 1/2500 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was rabbit IgG (monoclonal) Phycoerythrin (ab209478) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50mW Yellow-Green laser (561nm) and 586/15 bandpass filter.

This antibody gave a positive signal in HeLa cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-Dnmt1 antibody [EPR3522] (Phycoerythrin) (ab208999)

ab208999 staining Dnmt1 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab208999 at 1/250 dilution (pseudocolored in green) and ab195884, Rat monoclonal to Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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