

## Rabbit anti-Human DNMT1 Polyclonal Antibody | anti-DNMT1 antibody

DNMT1 Antibody

|                               |                       |                            |                                                                        |
|-------------------------------|-----------------------|----------------------------|------------------------------------------------------------------------|
| CATALOG #<br><b>AAA232006</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human</b> | APPLICATIONS<br><b>Immunofluorescence, Immunohistochemistry, ELISA</b> |
|-------------------------------|-----------------------|----------------------------|------------------------------------------------------------------------|

### PRODUCT SYNONYMS

DNMT1; Polyclonal Antibody; DNMT1 Antibody; DNA (cytosine-5)-methyltransferase 1; CXXC-type zinc finger protein 9; DNA methyltransferase Hsa1; DNA MTase Hsa1; M.Hsa1; MCMT; AIM; CXXC9; DNMT; anti-DNMT1 antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                         |
| Reactivity                                      | Human                                                                                                          |
| Clonality                                       | Polyclonal                                                                                                     |
| Isotype                                         | IgG                                                                                                            |
| Purity/Purification                             | >95%, Protein G purified                                                                                       |
| Form/Format                                     | Liquid                                                                                                         |
| Sequence Length                                 | 1632                                                                                                           |
| Applicable Applications for anti-DNMT1 antibody | IF (Immunofluorescence), IHC (Immunohistochemistry), ELISA                                                     |
| Species                                         | Human                                                                                                          |
| Immunogen                                       | Recombinant human DNA (cytosine-5)-methyltransferase 1 protein                                                 |
| Conjugate                                       | Non-conjugated                                                                                                 |
| Buffer                                          | Preservative: 0.03% Proclin 300<br>Constituents: 50% Glycerol, 0.01M PBS, PH 7.4                               |
| Santa Cruz Alternative                          | Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-10221 / sc-10222 / sc-10219 / sc-20701 |
| Preparation and Storage                         | Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze. |

### IMAGES



#### IF (Immunofluorescence)

Immunofluorescent analysis of HepG-2 cells using AAA232006 at a dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)



#### IHC (Immunohistochemistry)

Immunohistochemistry of paraffin-embedded AAA232006 using human colon cancer at dilution 1:100

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Related Product Information for anti-DNMT1 antibody | 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. Probably forms a corepressor complex required for activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells (PubMed:24623306). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). Promotes tumor growth (PubMed:24623306). |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                 |
|----------------------------------|-------------------------------------------------|
| NCBI GI #                        | 195927037                                       |
| NCBI GeneID                      | 1786                                            |
| NCBI Accession #                 | NP_001124295.1                                  |
| NCBI GenBank Nucleotide #        | NM_001130823.2                                  |
| UniProt Accession #              | P26358; Q9UHG5; Q9ULA2; Q9UMZ6; A0AV63; B7ZLW6  |
| Molecular Weight                 | 144,465 Da                                      |
| NCBI Official Full Name          | DNA (cytosine-5)-methyltransferase 1 isoform a  |
| NCBI Official Synonym Full Names | DNA methyltransferase 1                         |
| NCBI Official Symbol             | DNMT1                                           |
| NCBI Official Synonym Symbols    | AIM; DNMT; MCMT; CXXC9; HSN1E; ADCADN; m.HsaI   |
| NCBI Protein Information         | DNA (cytosine-5)-methyltransferase 1            |
| UniProt Protein Name             | DNA (cytosine-5)-methyltransferase 1            |
| UniProt Gene Name                | DNMT1                                           |
| UniProt Synonym Gene Names       | AIM; CXXC9; DNMT; Dnmt1; DNA MTase HsaI; M.HsaI |
| UniProt Entry Name               | DNMT1_HUMAN                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.