

Goat Anti-DNMT1 Antibody

Peptide-affinity purified goat antibody Catalog # AF1333a

Specification

Goat Anti-DNMT1 Antibody - Product Information

Application WB, IHC, E
Primary Accession P26358

Other Accession NP 001370, 1786, 13433 (mouse), 84350 (rat)

Reactivity Human

Predicted Mouse, Rat, Pig, Dog

Host Goat
Clonality Polyclonal
Concentration 100ug/200ul

Isotype IgG
Calculated MW 183165

Goat Anti-DNMT1 Antibody - Additional Information

Gene ID 1786

Other Names

DNA (cytosine-5)-methyltransferase 1, Dnmt1, 2.1.1.37, CXXC-type zinc finger protein 9, DNA methyltransferase Hsal, DNA MTase Hsal, M.Hsal, MCMT, DNMT1, AIM, CXXC9, DNMT

Dilution

WB~~1:1000 IHC~~1:100~500

E~~N/A

Format

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-DNMT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-DNMT1 Antibody - Protein Information

Name DNMT1

Synonyms AIM, CXXC9, DNMT



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. 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).

Cellular Location

Nucleus. Note=Localized to the perinucleolar region.

Tissue Location

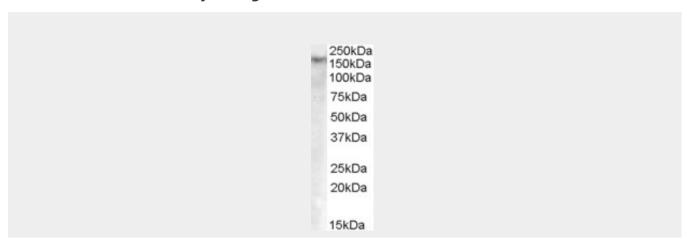
Ubiquitous; highly expressed in fetal tissues, heart, kidney, placenta, peripheral blood mononuclear cells, and expressed at lower levels in spleen, lung, brain, small intestine, colon, liver, and skeletal muscle. Isoform 2 is less expressed than isoform 1.

Goat Anti-DNMT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

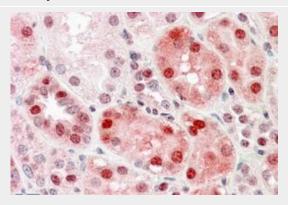
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Goat Anti-DNMT1 Antibody - Images





AF1333a (0.5 $\mu g/ml$) staining of Jurkat cell lysate (35 μg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1333a (3.8 $\mu g/ml$) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.