

## Product datasheet for **AP09035AF-N**

### **DNMT1 (177-550) Chicken Polyclonal Antibody**

#### **Product data:**

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Immunohistochemistry on Paraffin Sections:</b> 2.5 µg/ml. <b>Western Blot:</b> 1/2000.
Reactivity:	Human
Host:	Chicken
Isotype:	IgY
Clonality:	Polyclonal
Immunogen:	Recombinant human DNMT1 (aa 177-550)
Specificity:	This antibody reacts to DNA (cytosine-5-)-methyltransferase 1 (DNMT1) at aa 177-550.
Formulation:	PBS, without preservatives State: Azide Free State: Liquid purified ig
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	DNA (cytosine-5-)-methyltransferase 1
Database Link:	<a href="#">Entrez Gene 1786 Human P26358</a>



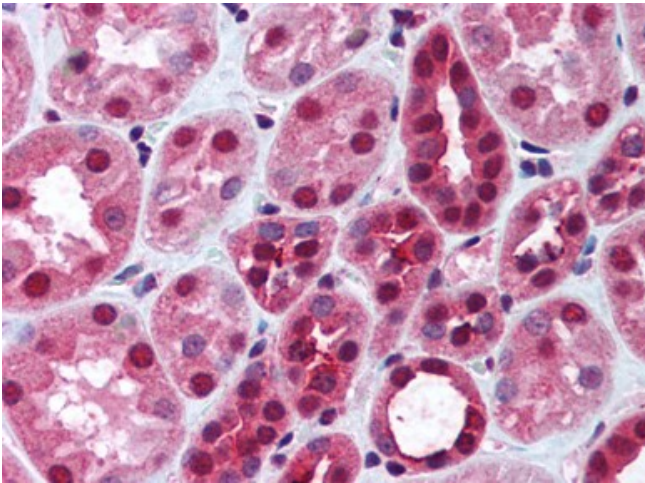
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**Background:**

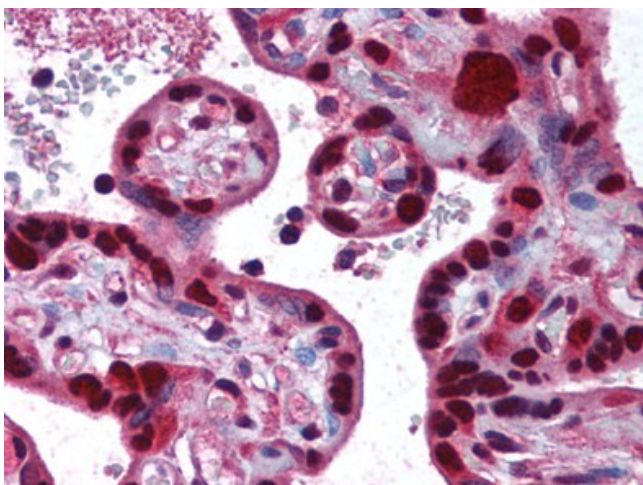
Methylation of DNA at cytosine residues plays an important role in regulation of gene expression, genomic imprinting and is essential for mammalian development. Hypermethylation of CpG islands in tumor suppressor genes or hypomethylation of bulk genomic DNA may be linked with development of cancer. To date, 3 families of mammalian DNA methyltransferase genes have been identified which include Dnmt 1, Dnmt 2 and Dnmt 3. Dnmt 1 is constitutively expressed in proliferating cells and inactivation of this gene causes global demethylation of genomic DNA and embryonic lethality. Dnmt 2 is expressed at low levels in adult tissues and its inactivation does not affect DNA methylation or maintenance of methylation. The Dnmt3 family members, Dnmt 3a and Dnmt 3b, are strongly expressed in ES cells but their expression is down regulated in differentiating ES cells and is low in adult somatic tissue. Dnmt1 co-purifies with the retinoblastoma (Rb) tumour suppressor gene product, E2F 1, and HDAC 1. Dnmt 1 also cooperates with Rb to repress transcription from promoters containing E2F binding sites suggesting a link between DNA methylation, histone deacetylase and sequence specific DNA binding activity, as well as a growth regulatory pathway that is disrupted in nearly all cancer cells.

**Synonyms:**

MCMT, Hsa1, AIM, CXXC9

**Product images:**

Kidney: Formalin-Fixed Paraffin-Embedded (FFPE)



Placenta: Formalin-Fixed Paraffin-Embedded (FFPE)