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Product datasheet for AP12946PU-N

DNMT1 pSer154 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Recommended Dilution:	ELISA: 1/1,000. Dot Blot: 1/500.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S154 of human Dnmt1.
Specificity:	This antibody detects Dnmt1 pSer154.
Formulation:	PBS with 0.09% (W/V) Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Protein A Chromatography followed by two-step phosphospecific peptide affinity purification.
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:	Entrez Gene 1786 Human P26358

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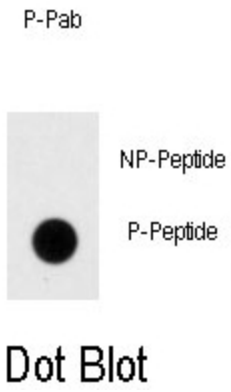
Background: Methylation of DNA at cytosine residues plays an important role in regulation of gene expression, genomic imprinting and is essential for mammalian development. Hypermethylation of CpG islands in tumor suppressor genes or hypomethylation of bulk genomic DNA may be linked with development of cancer. To date, 3 families of mammalian DNA methyltransferase genes have been identified which include Dnmt1, Dnmt2 and Dnmt3. Dnmt1 is constitutively expressed in proliferating cells and inactivation of this gene causes global demethylation of genomic DNA and embryonic lethality. Dnmt2 is expressed at low levels in adult tissues and its inactivation does not affect DNA methylation or maintenance of methylation. The Dnmt3 family members, Dnmt3a and Dnmt3b, 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, E2F1, and HDAC1. Dnmt1 also cooperates with Rb to repress transcription from promoters containing E2Fbinding 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.
Aberrant methylation patterns are associated with certain human tumors and developmental abnormalities.

Synonyms: MCMT, HsaI, AIM, CXXC9

Note: **Molecular weight:** 183165 Da

Product images:



Dot blot analysis of anti-Phospho-Dnmt1 pSer154 Antibody (Cat.#AP12946PU-N) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.