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Dnmt2 Rabbit pAb

Catalog # AP99615

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O14717
Other Accession	O14717
Predicted	Rat, Pig, Human, Mouse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	44597
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Dnmt2
Epitope Specificity	61-160/391
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the C5-methyltransferase family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Methylation at the 5'-position of cytosine is the only known naturally occurring covalent modification of the mammalian genome. DNA methylation requires the enzymatic activity of DNA 5-cytosine methyltransferase (Dnmt) proteins, which catalyze the transfer of a methyl group from S-adenosyl methionine to the 5'-position of cytosines residing in the dinucleotide CpG motif, and this methylation results in transcriptional repression of the target gene. The Dnmt enzymes are encoded by independent genes. Dnmt1 is the most abundant, and it preferentially methylates hemimethylated DNA and coordinates gene expression during development. Additional mammalian Dnmt proteins include Dnmt2 and Dnmt3. Dnmt2 lacks the large N-terminal regulator domain of Dnmt1, is expressed at substantially lower levels in adult tissues, and is likely involved in methylating newly integrated retroviral DNA. Dnmt3a and Dnmt3b are encoded by two distinct genes, but both are abundantly expressed in embryonic stem cells, where they also methylate CpG motifs on DNA.

Additional Information

Gene ID	1787
Other Names	DMNT2; DNMT2; MHSAIIP; PUMET; RNMT1; TRDMT_HUMAN; TRDMT1; DNA (cytosine-5)-methyltransferase-like protein 2 (Dnmt2); DNA methyltransferase homolog HsaIIP (DNA MTase homolog HsaIIP | M.HsaIIP); 2.1.1.204; tRNA aspartic acid methyltransferase 1; DNA (cytosine-5-)-methyltransferase 2; tRNA (cytosine(38)-C(5))-methyltransferase
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500

	0-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TRDMT1
Synonyms	DNMT2 {ECO:0000303|PubMed:16424344}
Function	Specifically methylates cytosine 38 in the anticodon loop of tRNA(Asp) (PubMed:16424344). Has higher activity on tRNA(Asp) modified with queuosine at position 34 (PubMed:30093495).
Cellular Location	Cytoplasm.
Tissue Location	Ubiquitous. Higher expression in testis, ovary and thymus and at much lower levels in spleen, prostate, colon, small intestine, and peripheral blood leukocytes

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.