For Research Use Only

DNMT2 Polyclonal antibody

Catalog Number:19221-1-AP Featured Product 8 Publications

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Basic Information

Catalog Number:
19221-1-AP

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG5571

GenBank Accession Number:
BC047733

GeneID (NCBI):
1787

UNIPROT ID:
O14717

Full Name:
tRNA aspartic acid methyltransferase 1

Calculated MW:
45 kDa

Observed MW:
43-45 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:500-1:2000

Applications

Tested Applications:
WB, ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human

Positive Controls:

WB : HeLa cells, HEK-293 cells, MCF-7 cells, mouse liver tissue

Background Information

Dnmt2 was initially assigned a member of the DNA methyltransferase family on the basis of its extensive homology with eukaryotic and prokaryotic DNA-(cytosine C5)-methyltransferases . However, in the apparent absence of a phenotype in dnmt2 knockout cells, Dnmt2's possible biological function remained unknown , even though Dnmt2 is strongly conserved and it is found in species ranging from Schizosaccharomyces pombe to human. Later very weak, residual DNA methylation activity was found with enzymes from different species. The finding that Dnmt2 is an active RNA methyltransferase capable of methylating the C38 position of the tRNA Asp came as a surprise . However, still no cellular function of the tRNA Asp methylation has been found, although in Zebrafish Dnmt2 knock-down caused a developmental phenotype . It is very intriguing that an enzyme that looks like a DNA methyltransferase can methylate RNA, in particular since the RNA and DNA specific m5 C methyltransferases use different catalytic residues and a different mechanism for the methyl transfer reaction . the predicted molecular weight of Dnmt2 is 45 kDa, but it may migrate to the 40 kDa (PMID: 18567810)

Notable Publications

Author	Pubmed ID	Journal	Application
Lijie Zhou	34185414	Clin Transl Med	WB
Ulrike Schumann	32293435	BMC Biol	WB
Hongzhi Liu	42612879	Biochem Pharmacol	

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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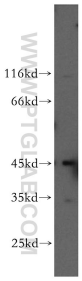
This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



HeLa cells were subjected to SDS PAGE followed by western blot with 19221-1-AP (DNMT2 antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.