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Dnmt2 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1021b

Product Information

Application	IHC-P, WB, E
Primary Accession	O14717
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44597
Antigen Region	346-375

Additional Information

Gene ID	1787
Other Names	tRNA (cytosine(38)-C(5))-methyltransferase, DNA (cytosine-5)-methyltransferase-like protein 2, Dnmt2, DNA methyltransferase homolog HsaIIP, DNA MTase homolog HsaIIP, MHsaIIP, PuMet, TRDMT1, DNMT2
Target/Specificity	This Dnmt2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 346-375 amino acids from human Dnmt2.
Dilution	IHC-P~~1:100~500 WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Dnmt2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

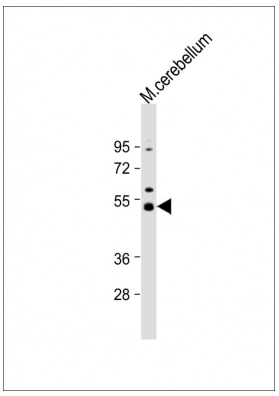
Background

CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. This gene encodes a protein with similarity to DNA methyltransferases, but this protein does not display methyltransferase activity. The protein strongly binds DNA, suggesting that it may mark specific sequences in the genome. Alternative splicing results in multiple transcript variants encoding different isoforms.

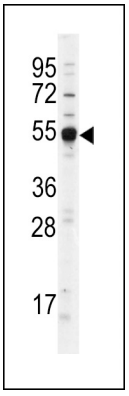
References

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Franchina, M., et al., Int. J. Biochem. Cell Biol. 33(11):1104-1115 (2001).
Dong, A., et al., Nucleic Acids Res. 29(2):439-448 (2001).
Yoder, J.A., et al., Hum. Mol. Genet. 7(2):279-284 (1998).
Van den Wyngaert, I., et al., FEBS Lett. 426(2):283-289 (1998).

Images

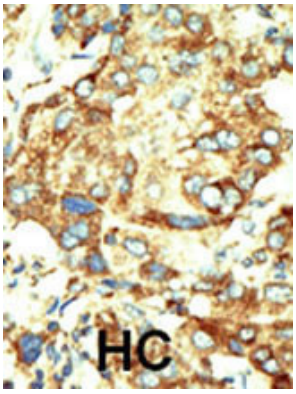


Anti-Dnmt2 Antibody (P361) at 1:1000 dilution + mouse cerebellum lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of anti-hDnmt2-P361 Pab (Cat. #AP1021b) in mouse cerebellum tissue lysates (35ug/lane).hDnmt2-P361(arrow) was detected using the purified Pab (1:60 dilution).

Formalin-fixed and paraffin-embedded human cancer



tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- Presence of 5-methylcytosine in CpNpG trinucleotides in the human genome.

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