

**Product Name: Dnmt3b Rabbit Polyclonal Antibody****Catalog #: APRab10092**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Other
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
<b>Molecular Weight</b>	96kDa

**Antigen Information**

<b>Gene Name</b>	DNMT3B
<b>Alternative Names</b>	DNMT3B; DNA (cytosine-5)-methyltransferase 3B; Dnmt3b; DNA methyltransferase HsaIIIB; DNA MTase HsaIIIB; M.HsaIIIB
<b>Gene ID</b>	1789.0
<b>SwissProt ID</b>	Q9UBC3
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human DNMT3B. AA range:1-50

**Background**

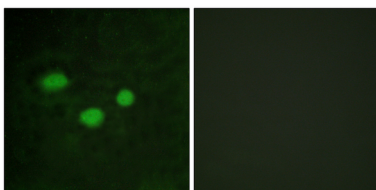
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CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. This gene encodes a DNA methyltransferase which is thought to function in de novo methylation, rather than maintenance methylation. The protein localizes primarily to the nucleus and its expression is developmentally regulated. Mutations in this gene cause the immunodeficiency-centromeric instability-facial anomalies (ICF) syndrome. Eight alternatively spliced transcript variants have been described. The full length sequences of variants 4 and 5 have not been determined. [provided by RefSeq, May 2011],catalytic activity:S-adenosyl-L-methionine + DNA = S-adenosyl-L-homocysteine + DNA containing 5-methylcytosine.,disease:Defects in DNMT3B are a cause of immunodeficiency-centromeric instability-facial anomalies syndrome (ICF) [MIM:242860]. ICF is a rare autosomal recessive disorder characterized by a variable immunodeficiency, mild facial anomalies, and centromeric heterochromatin instability involving chromosomes 1, 9, and 16. ICF is biochemically characterized by hypomethylation of CpG sites in some regions of heterochromatin.,function:Required for genome wide de novo methylation and is essential for development. DNA methylation is coordinated with methylation of histones. Isoforms 4 and 5 are probably not functional due to the deletion of two conserved methyltransferase motifs.,online information:DNMT3B mutation db,PTM:Sumoylated.,similarity:Belongs to the C5-methyltransferase family.,similarity:Contains 1 ADD-type zinc finger.,similarity:Contains 1 PWWP domain.,subunit:Interacts with SUV39H1 (By similarity). Interacts with SETDB1, UBL1 and UBE2I9. Interacts with DNMT1 and DNMT3A. Interacts with the PRC2/EED-EZH2 complex.,tissue specificity:Ubiquitous; highly expressed in fetal liver, heart, kidney, placenta, and at lower levels in spleen, colon, brain, liver, small intestine, lung, peripheral blood mononuclear cells, and skeletal muscle. Isoform 1 is expressed in all tissues except brain, skeletal muscle and PBMC, 3 is ubiquitous, 4 is expressed in all tissues except brain, skeletal muscle, lung and prostate and 5 is detectable only in testis and at very low level in brain and prostate.,

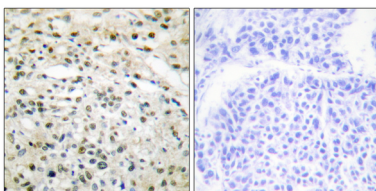
## Research Area

Cysteine and methionine metabolism;

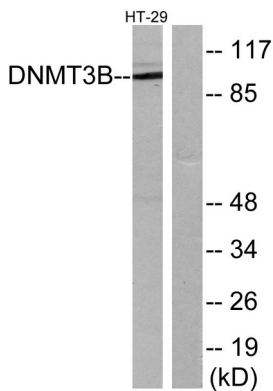
## Image Data



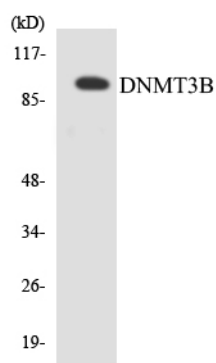
Immunofluorescence analysis of HeLa cells, using DNMT3B Antibody. The picture on the right is blocked with the synthesized peptide.



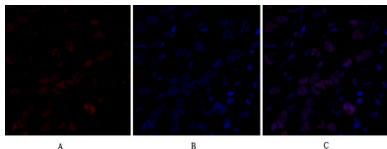
Immunohistochemistry analysis of paraffin-embedded human liver carcinoma tissue, using DNMT3B Antibody. The picture on the right is blocked with the synthesized peptide.



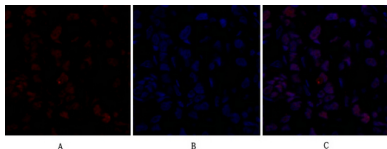
Western blot analysis of lysates from HT-29 cells, using DNMT3B Antibody. The lane on the right is blocked with the synthesized peptide.



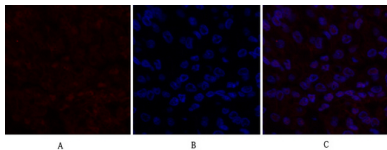
Western blot analysis of the lysates from HeLa cells using DNMT3B antibody.



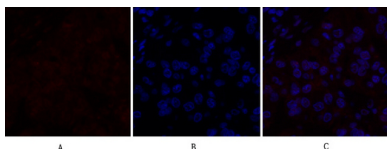
Immunofluorescence analysis of human-breast-cancer tissue. 1, Dnmt3b Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



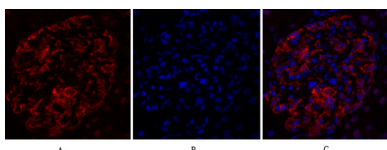
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Immunofluorescence analysis of human-liver-cancer tissue. 1, Dnmt3b Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



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Immunofluorescence analysis of human-kidney tissue. 1, Dnmt3b Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B