

Anti-Dnmt3b antibody



Western Blot (WB) analysis of chicken sample using Dnmt3b Polyclonal Antibody. (STJ92753)



Description

Dnmt3b is a protein encoded by the DNMT3B gene which is approximately 95,7 kDa. Dnmt3b is localised to the nucleus. It is involved in the mesodermal commitment pathway and sulfur amino acid metabolism. It is a methyltransferase which is thought to function in genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of histones. Dnmt3b is expressed ubiquitously with the highest expression in foetal liver, heart, kidney and placenta. Mutations in the DNMT3B gene may result in immunodeficiency-centromeric. STJ92753 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of Dnmt3b protein.

Model	STJ92753
Host	Rabbit
Reactivity	Avian, Human
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human Dnmt3b
Immunogen Region	1-80 aa, N-terminal
Gene ID	1789
Gene Symbol	DNMT3B
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	Dnmt3b Polyclonal Antibody detects endogenous levels of Dnmt3b protein.

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.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	DNA cytosine-5-methyltransferase 3B Dnmt3b DNA methyltransferase HsaIIIB DNA MTase HsaIIIB M.HsaIIIB
Molecular Weight	96 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:29790MIM:158901
Alternative Names	DNA cytosine-5-methyltransferase 3B Dnmt3b DNA methyltransferase HsaIIIB DNA MTase HsaIIIB M.HsaIIIB
Function	Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of histones. May preferentially methylates nucleosomal DNA within the nucleosome core region. May function as transcriptional co-repressor by associating with CBX4 and independently of DNA methylation. Seems to be involved in gene silencing . In association with DNMT1 and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9. Isoforms 4 and 5 are probably not functional due to the deletion of two conserved methyltransferase motifs. Function as transcriptional corepressor by associating with ZHX1. Required for DUX4 silencing in somatic cells .
Sequence and Domain Family	The PWWP domain is essential for targeting to pericentric heterochromatin.
Cellular Localization	Nucleus
Post-translational Modifications	Sumoylated. Citrullinated by PADI4.