bs-0301R **[Primary Antibody]**

Dnmt3b Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1789 **SWISS:** Q9UBC3

Target: Dnmt3b

Immunogen: KLH conjugated synthetic peptide derived from human Dnmt3 Beta: 1-80/853.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Methylation of DNA at cytosine residues plays an important role in regulation of gene expression, genomic imprinting and is essential for mammalian development. Hypermethylation of CpG islands in tumor suppressor genes or hypomethylation of bulk genomic DNA may be linked with development of cancer. To date, 3 families of mammalian DNA methyltransferase genes have been identified which include Dnmt1, Dnmt2 and Dnmt3. Dnmt1 is constitutively expressed in proliferating cells and inactivation of this gene causes global demethylation of genomic DNA and embryonic lethality. Dnmt2 is expressed at low levels in adult tissues and its inactivation does not affect DNA methylation or maintenance of methylation. The Dnmt3 family members, Dnmt3a and Dnmt3b, are strongly expressed in ES cells but their expression is down regulated in differentiating ES cells and is low in adult somatic tissue. Recently, it has been shown that naturally occurring mutations of Dnmt3b gene occurs in patients with a rare autosomal recessive disorder, termed ICF (immunodeficiency, centromeric instability, and facial anomalies) syndrome.

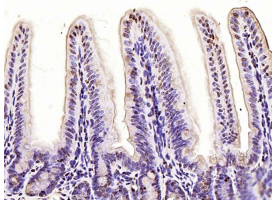
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse (predicted: Rat)

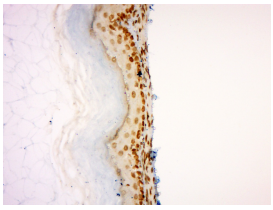
Predicted MW.: 94 kDa

Subcellular Location: Nucleus

VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (Mouse small intestine); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Dnmt3b) Polyclonal Antibody, Unconjugated (bs-0301R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Dnmt3b) Polyclonal Antibody, Unconjugated (bs-0301R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

SELECTED CITATIONS

- **[IF=8.739]** Ai Wei. et al. Inhibition of DNA methylation derepresses PPARγ and attenuates pulmonary fibrosis. 2021 Aug

11 WB,IHC ;Mouse. 34378791

- **[IF=6]** Shu Fang. et al. DPPA2/4 Promote the Pluripotency and Proliferation of Bovine Extended Pluripotent Stem Cells by Upregulating the PI3K/AKT/GSK3β/β-Catenin Signaling Pathway. CELLS-BASEL. 2024 Jan;13(5):382 WB ;Bovine. 38474345
- **[IF=5.6]** Chen Li. et al. Mixed-Lineage Leukemia 1 Inhibition Enhances the Differentiation Potential of Bovine Embryonic Stem Cells by Increasing H3K4 Mono-Methylation at Active Promoters. INT J MOL SCI. 2023 Jan;24(15):11901 WB ;Bovine. 37569280
- **[IF=5.2]** Zhao, Qian, et al. "Prenatal Cocaine Exposure Impairs Cognitive Function of Progeny Via Insulin Growth Factor II Epigenetic Regulation." Neurobiology of Disease (2015). WB ;="Mouse". 26054440
- **[IF=3.85]** Wu, Yuting, et al. "Methylation of Septin9 mediated by DNMT3a enhances hepatic stellate cells activation and liver fibrogenesis." Toxicology and Applied Pharmacology 315 (2017): 35-49. WB ;="Mouse". 27939986