

Anti-DNMT3L Antibody

Catalog Number: A04214

About DNMT3L

DNMT 3L is a nuclear protein that has similarity to DNA methyltransferases, involved in de novo methylation of CpG islands. 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 nuclear protein with similarity to DNA methyltransferases. This protein is not thought to function as a DNA methyltransferase as it does not contain the amino acid residues necessary for methyltransferase activity. However, this protein does stimulate de novo methylation by DNA cytosine methyltransferase 3 alpha and it is thought to be required for the establishment of maternal genomic imprints. This protein also mediates transcriptional repression through interaction with histone deacetylase 1.

Overview

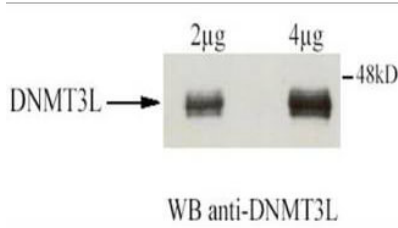
Product Name	Anti-DNMT3L Antibody
Reactive Species	Human
Description	Boster Bio Anti-DNMT3L Antibody (Catalog # A04214). Tested in ELISA, IHC, WB applications. This antibody reacts with Human.
Application	ELISA, IP, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q9UJW3

Technical Details

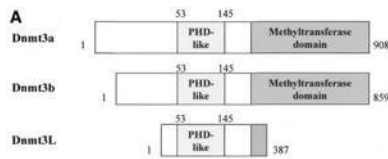
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 150-175 of Human DNMT3L (DNA (cytosine-5-)-methyltransferase 3-like). DNMT3L is a nuclear protein with similarity to DNA methyltransferases.
Predicted Reactive Species	Chimpanzee
Isotype	IgG

Form	Liquid (sterile filtered)
Concentration	1.11 mg/mL by UV absorbance at 280 nm
Purification	This is an affinity purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase. This antibody is expected to cross-react with mouse as the sequence of the human immunogen shows 76% identity with mouse. Reactivity with DNMT3L from other species has not yet been tested.
Suggested Dilutions	ELISA: 1:1000 - 1:3000 IHC: 1:500 IP: 1:100 WB: 1:500 Anti-DNMT3L antibody has been tested for use in ELISA against the immunizing peptide. This antibody has been tested in immunohistochemistry and western blot. This antibody works for western blotting only following immunoprecipitation. The expected molecular weight of human DNMT3L is 43.6 kDa. Reactivity in other immunoassays is unknown.

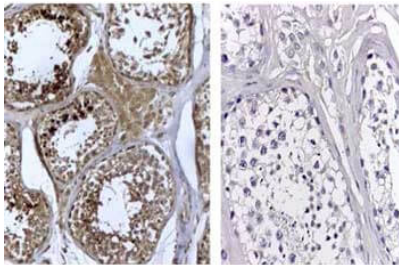
Anti-DNMT3L Antibody (A04214) Images



Affinity Purified Rabbit anti-DNMT3L was used at a 1:1,500 dilution to detect human DNMT3L by western blot after immunoprecipitation using the same antibody. Transfection of U2OS cells (10cm dish) was accomplished using 3 µg of GAL4-DNMT3L. Protein extraction using IPH at 150mM. For IP and WB conditions see Fuks et al. (2000). For western blotting the antibody was used at 0.4µg/ml in TBS milk 2%, BSA 0.5%. Detection occurred using ECL.



The conserved N-terminal cysteine-rich region, the PHD-like motif, characteristic of the Dnmt3 family is shown. The C-terminal domain is the catalytic methyltransferase domain present in Dnmt3a and Dnmt3b whereas the key catalytic motifs are absent in Dnmt3L. Numbers indicate amino acid residues.



Immunohistochemistry Rabbit Anti-Human DNMT3L Antibody. Antibody: Rabbit Anti-Human DNMT3L Antibody at 1:500. Antigen Retrieval: HIER pH 6.2 Staining: Nuclear staining of testicular germ cells (Left); Neg Ctrl (Right) Human testis 40X.

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Anti-DNMT3L Antibody

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