

Datasheet for 600-401-454**DNMT3L Antibody****Overview**

Description:	Anti-Human DNMT3L (RABBIT) Antibody - 600-401-454
Item No.:	600-401-454
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	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.
Synonyms:	rabbit anti-DNMT3L antibody, DNA (cytosine-5)-methyltransferase 3-like, DNMT3L, DNMT 3L, DNMT-3L
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	DNMT3L
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

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.
Purity/Specificity:	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.
Relevant Links:	• UniProtKB - Q9UJW3 • NCBI - NP_787063.1 • GeneID - 29947

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1000 - 1:3000
IHC:	1:500
IP:	1:100
WB:	1:500

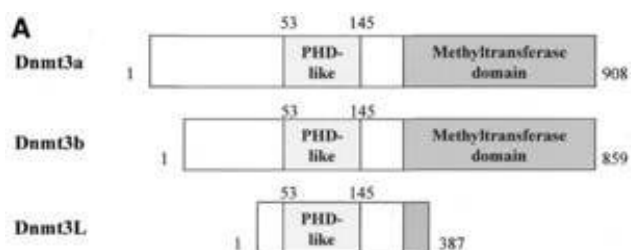
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.11 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

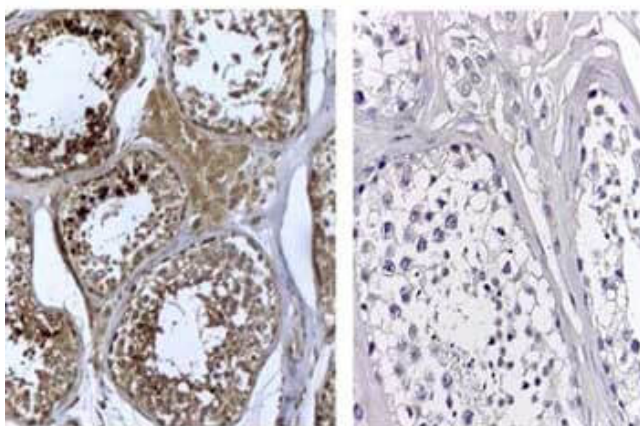
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



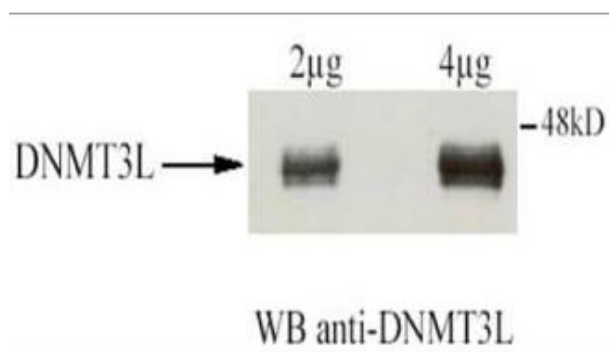
Figure

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

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.

**Western Blot**

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 IPI 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.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.