10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DNMT3L Antibody (aa322-337)

Rabbit Polyclonal Antibody
Catalog # ALS11569

Specification

DNMT3L Antibody (aa322-337) - Product Information

Application	**IHC**
Primary Accession	Q9UJW3
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**44kDa KDa**

DNMT3L Antibody (aa322-337) - Additional Information

Gene ID 29947

Other Names
DNA (cytosine-5)-methyltransferase 3-like, DNMT3L

Target/Specificity
Amino acids 322 to 337 of human DNMT3L

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
DNMT3L Antibody (aa322-337) is for research use only and not for use in diagnostic or therapeutic procedures.

DNMT3L Antibody (aa322-337) - Protein Information

Name DNMT3L

Function
Catalytically inactive regulatory factor of DNA methyltransferases that can either promote or inhibit DNA methylation depending on the context (By similarity). Essential for the function of DNMT3A and DNMT3B: activates DNMT3A and DNMT3B by binding to their catalytic domain (PubMed:17687327). Acts by accelerating the binding of DNA and S-adenosyl-L-methionine (AdoMet) to the methyltransferases and dissociates from the complex after DNA binding to the methyltransferases (PubMed:17687327). Recognizes unmethylated histone H3 lysine 4 (H3K4me0) and induces de novo DNA methylation by recruitment or activation of DNMT3 (PubMed:17687327). Plays a key role in embryonic stem cells and germ cells (By similarity). In germ cells, required for the methylation of imprinted loci together with DNMT3A (By similarity). In male germ cells, specifically required to methylate retrotransposons, preventing their mobilization (By similarity). Plays a key

role in embryonic stem cells (ESCs) by acting both as an positive and negative regulator of DNA methylation (By similarity). While it promotes DNA methylation of housekeeping genes together with DNMT3A and DNMT3B, it also acts as an inhibitor of DNA methylation at the promoter of bivalent genes (By similarity). Interacts with the EZH2 component of the PRC2/EED-EZH2 complex, preventing interaction of DNMT3A and DNMT3B with the PRC2/EED-EZH2 complex, leading to maintain low methylation levels at the promoters of bivalent genes (By similarity). Promotes differentiation of ESCs into primordial germ cells by inhibiting DNA methylation at the promoter of RHOX5, thereby activating its expression (By similarity).

Cellular Location
Nucleus.

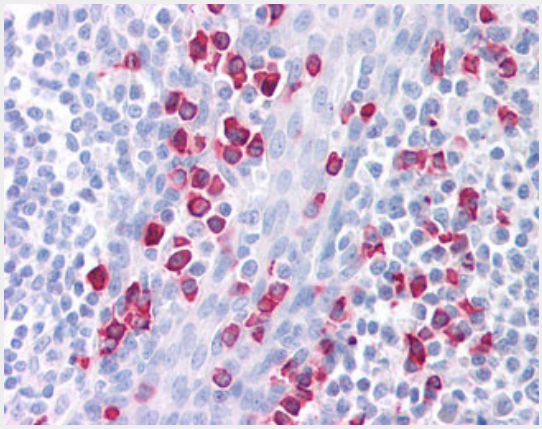
Tissue Location
Expressed at low levels in several tissues including testis, ovary, and thymus.

DNMT3L Antibody (aa322-337) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DNMT3L Antibody (aa322-337) - Images



Anti-DNMT3L antibody IHC of human tonsil.

DNMT3L Antibody (aa322-337) - Background

Catalytically inactive regulatory factor of DNA methyltransferases. It is essential for the function of DNMT3A and DNMT3B. Activates DNMT3A and DNMT3B by binding to their catalytic domain. Accelerates the binding of DNA and AdoMet to the methyltransferases and dissociates from the complex after DNA binding to the methyltransferases. Recognizes unmethylated histone H3 lysine 4 (H3K4) and induces de novo DNA methylation by recruitment or activation of DNMT3.

DNMT3L Antibody (aa322-337) - References

Aapola U.,et al.Genomics 65:293-298(2000).
Hattori M.,et al.Nature 405:311-319(2000).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Ooi S.K.,et al.Nature 448:714-717(2007).
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