SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Rabbit Anti-Dnmt3a antibody

Catalog Number: SL23029R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Dnmt3a
Immunogen:	KLH conjugated synthetic peptide derived from human Dnmt3a: 51-150/912
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℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB (1:500-2000) IHC-P (1:100-500) IHC-F (1:100-500) IF (1:100-500) Not yet tested in other applications. Optimal working dilutions must be determined by the end user.
Reactivity:	Mouse, Rat (predicted: Human, Rabbit, Sheep, Cow, Dog)
Predicted MW.:	100kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	The tumor organization has the DNA methylation disorder, including and damps cancer gene high methylation DNA with the cell multiplication cycle close related cancer gene low methylation the methyl transferase (Dnmt) participation methylation the formation (is mainly Dnmt3a and Dnmt3b) and the maintenance (is mainly Dnmt1) (isoform CRA_b) (DNA methyltransferase MmuIIIA) (DNA MTase MmuIIIA) **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. It modifies DNA in a non-processive manner and also methylates non-CpG sites. May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1. Plays a role in paternal and maternal imprinting. Required for

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	methylation of most imprinted loci in germ cells. Acts as a transcriptional corepressor for ZNF238. Can actively repress transcription through the recruitment of HDAC activity. **Subunit:** Heterotetramer composed of 1 DNMT3A homodimer and 2 DNMT3L subunits (DNMT3L-DNMT3A-DNMT3A-DNMT3L). Interacts with UBC9, PIAS1 and PIAS2. Binds the ZNF238 transcriptional repressor. Interacts with SETDB1. Associates with HDAC1 through its ADD domain. Interacts with DNMT1 and DNMT3B. Interacts with the PRC2/EED-EZH2 complex. Interacts with MPHOSPH8. Interacts with histone H3 that is not methylated at 'Lys-4' (H3K4). **Subcellular Location:** Nucleus. Cytoplasm. Note=Accumulates in the major satellite repeats at pericentric heterochromatin. **Tissue Specificity:** Highly expressed in fetal tissues, skeletal muscle, heart, peripheral blood mononuclear cells, kidney, and at lower levels in placenta, brain, liver, colon, spleen, small intestine and lung. **Post-translational modifications:** Sumoylated; sumoylation disrupts the ability to interact with histone deacetylases (HDAC1 and HDAC2) and repress transcription. **Similarity:** Belongs to the C5-methyltransferase family. Contains 1 ADD domain. Contains 1 GATA-type zinc finger. Contains 1 PHD-type zinc finger. Contains 1 PWWP domain. **Database links:** **Entrez Gene:** 1788 Human **Entrez Gene:** 13435 Mouse Omim: 602769 Human **SwissProt:** Q9Y6K1 Human **SwissProt:** O88508 Mouse **Unigene:** 515840 Human **Unigene:** 5001 Mouse Tumour tissues exhibit DNA methylation disorders, including hypomethylation of oncogenes closely related to the cell proliferation cycle and hypermethylation of tumor suppressor genes. DNA methyltransferases (Dnmt) participate in the formation of methylation (mainly Dnmt3a and Dnmt3b) and maintenance (mainly Dnmt1)

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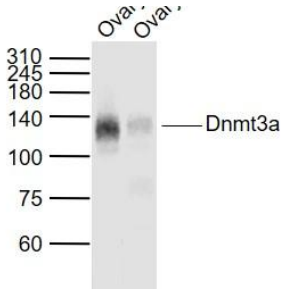
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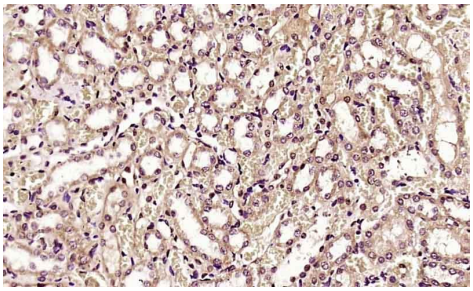
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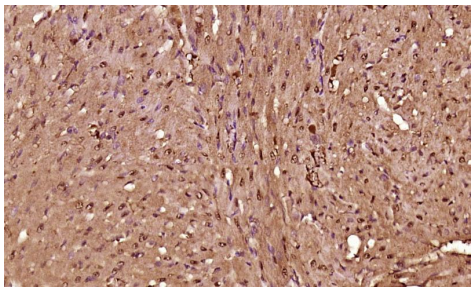
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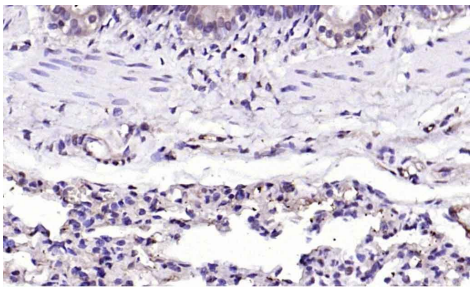
Sample:
Lane 1: Ovary (Mouse) Lysate at 40 ug
Lane 2: Ovary (Rat) Lysate at 40 ug
Primary: Anti-Dnmt3a (SL23029R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 120 kD
Observed band size: 120 kD



Paraformaldehyde-fixed, paraffin embedded (Rat kidney); 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 (DNMT-3 alpha) Polyclonal Antibody, Unconjugated (SL23029R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat heart); 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 (DNMT-3 alpha) Polyclonal Antibody, Unconjugated (SL23029R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat lung); 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 (Dnmt3a) Polyclonal Antibody, Unconjugated (SL23029R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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