

For Research Use Only

DNMT3A Polyclonal antibody

Catalog Number: 20954-1-AP

Featured Product

53 Publications



Basic Information

Catalog Number:

20954-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG15111

GenBank Accession Number:

BC043617

GeneID (NCBI):

1788

UNIPROT ID:

Q9Y6K1

Full Name:

DNA (cytosine-5)-methyltransferase 3 alpha

Calculated MW:

912 aa, 102 kDa

Observed MW:

120-130 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:500-1:2000

IF/ICC: 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF, ChIP, RIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, goat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: Jurkat cells, HEK-293 cells, HepG2 cells, HeLa cells, NIH/3T3 cells, mouse testis tissue, rat testis tissue

IP: HeLa cells,

IHC: mouse testis tissue, mouse colon tissue, rat colon tissue, rat testis tissue

IF/ICC: K-562 cells, HeLa cells

Background Information

DNA methylation in vertebrate animals is an epigenetic modification that is important for embryonic development, imprinting, and the inactivation of X chromosomes. DNA methylation is catalyzed by a family of DNA methyltransferases (DNMTs) that include the maintenance enzyme DNMT1 and de novo methyltransferases DNMT3a and DNMT3b. The overexpression of DNMT1, DNMT3a, and DNMT3b has been reported in various malignancies, including gastric, urothelial, and lung cancers, and may be related to tumorigenesis, tumor progression, and poor survival. Two isoforms of DNMT3a exist: the full-length DNMT3a, and the shorter form DNMT3a2 which lacks the N-terminal fragment. DNMT3a is expressed ubiquitously at low levels, while DNMT3a2 is specially expressed at high levels in embryonic stem cells and shows restricted expression in tissues known to undergo de novo methylation including testis and ovary. This antibody was raised against the N-terminal region of human DNMT3a. It is expected to detect the 120-130 kDa DNMT3a but not 72-100 kDa DNMT3a2.

Notable Publications

Author	Pubmed ID	Journal	Application
Ye Fu	36098921	Environ Sci Pollut Res Int	WB
Kalaiselvi Sivalingam	32899583	Brain Sci	WB
Yue Ming	36327957	Psychiatry Investig	ChIP, RIP

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

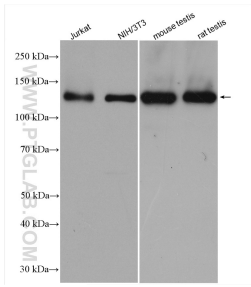
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

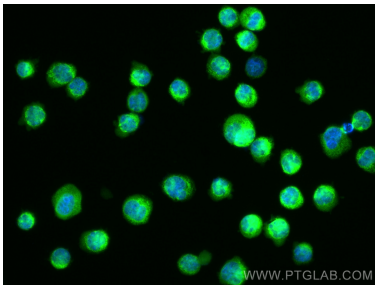
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

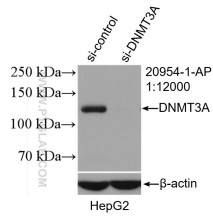
Selected Validation Data



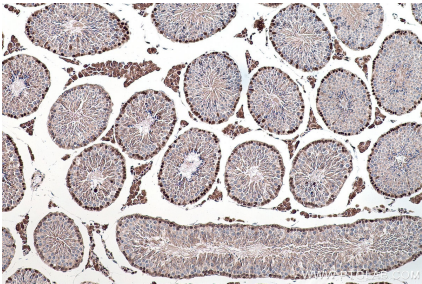
Various lysates were subjected to SDS PAGE followed by western blot with 20954-1-AP (DNMT3A antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



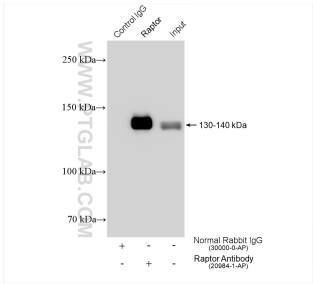
Immunofluorescent analysis of (4% PFA) fixed K-562 cells using DNMT3A antibody (20954-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



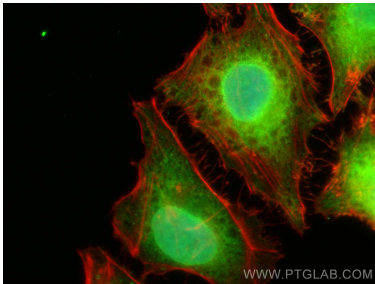
WB result of DNMT3A antibody (20954-1-AP; 1:12000; incubated at room temperature for 1.5 hours) with sh-Control and sh-DNMT3A transfected HepG2 cells.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 20954-1-AP (DNMT3A antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-DNMT3A (IP:20954-1-AP, 4ug; Detection:20954-1-AP 1:5000) with HeLa cells lysate 1560 ug.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using DNMT3A antibody (20954-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red).