

Rabbit DNMT3A Polyclonal Antibody | anti-DNMT3A antibody

Phospho-DNMT3A (Ser390/Ser393) Antibody

CATALOG # AAA329217	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

DNMT3A; Polyclonal Antibody; Phospho-DNMT3A (Ser390/Ser393) Antibody; DNA (cytosine 5) methyltransferase 3 alpha; DNA (cytosine 5) methyltransferase 3A; DNA (cytosine-5)-methyltransferase 3A; DNA cytosine methyltransferase 3A2; DNA methyltransferase 3 alpha; DNA methyltransferase 3a; DNA methyltransferase HsaIIIA; DNA MTase HsaIIIA; DNM3A_HUMAN; DNMT 3a; DNMT; Dnmt3a; DNMT3A2; M.HsaIIIA; MCMT; OTTHUMP00000201149; TBRS; anti-DNMT3A antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-DNMT3A (Ser390/Ser393) Antibody detects endogenous levels of DNMT3A only when phosphorylated at Ser390/Ser393. 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.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-DNMT3A antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human DNMT3A around the phosphorylation site of Ser390/Ser393.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Sumoylated; sumoylation disrupts the ability to interact with histone deacetylases (HDAC1 and HDAC2) and repress transcription.
Subunit Structure	Heterotetramer composed of 1 DNMT3A homodimer and 2 DNMT3L subunits (DNMT3L-DNMT3A-DNMT3A-DNMT3L). Interacts with UBC9, PIAS1 and PIAS2 (By similarity). Binds the ZBTB18 transcriptional repressor. Interacts with SETDB1. Associates with HDAC1 through its ADD domain. Interacts with UHRF1 (By similarity). 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).
Similarity	The PWWP domain is essential for targeting to pericentric heterochromatin. It specifically recognizes and binds trimethylated 'Lys-36' of histone H3 (H3K36me3) (By similarity).Belongs to the class I-like SAM-binding methyltransferase superfamily. C5-methyltransferase family.
Subcellular Location	Nucleus. Cytoplasm. Note: Accumulates in the major satellite repeats at pericentric heterochromatin.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemisry)

At 1/100 staining Mouse heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)

Staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-DNMT3A antibody	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 methylation of most imprinted loci in germ cells. Acts as a transcriptional corepressor for ZBTB18. Recruited to trimethylated 'Lys-36' of histone H3 (H3K36me3) sites. Can actively repress transcription through the recruitment of HDAC activity.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	12751473
NCBI GeneID	1788
NCBI Accession #	NP_072046.2
NCBI GenBank Nucleotide #	NM_022552.4
UniProt Accession #	Q9Y6K1; Q86TE8; Q86XF5; Q8IZV0; Q8WXU9; E9PEB8
Molecular Weight	102kDa
NCBI Official Full Name	DNA (cytosine-5)-methyltransferase 3A isoform a
NCBI Official Synonym Full Names	DNA (cytosine-5-)-methyltransferase 3 alpha
NCBI Official Symbol	DNMT3A
NCBI Official Synonym Symbols	DNMT3A2; M.HsaIIIA
NCBI Protein Information	DNA (cytosine-5)-methyltransferase 3A; DNA (cytosine-5)-methyltransferase 3A; DNA MTase HsaIIIA; DNA cytosine methyltransferase 3A2
UniProt Protein Name	DNA (cytosine-5)-methyltransferase 3A
UniProt Gene Name	DNMT3A
UniProt Synonym Gene Names	Dnmt3a; DNA MTase HsaIIIA; M.HsaIIIA
UniProt Entry Name	DNM3A_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/dnmt3a-antibody-peptide-elisa-immunohistochemistry-elisa/329217>