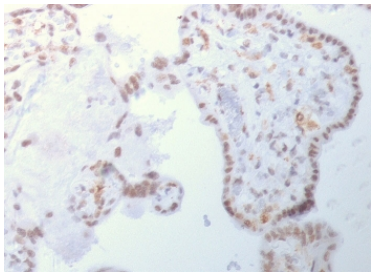
DNMT3A Antibody / De Novo DNA Methylation Enzyme Antibody [clone PCRP-DNMT3A-1E2] (V3827)

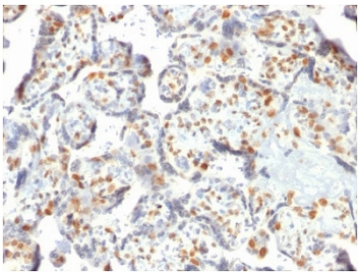
Catalog No.	Formulation	Size
V3827-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3827-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3827SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

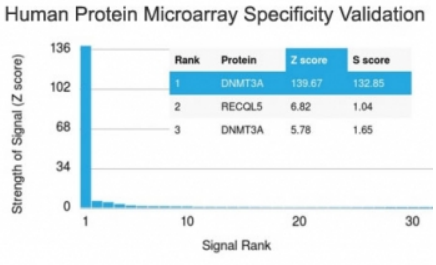
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	PCRP-DNMT3A-1E2
Purity	Protein G affinity chromatography
UniProt	Q16655
Localization	Nuclear
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western Blot: 1-2ug/ml
Limitations	This DNMT3A Antibody / De Novo DNA Methylation Enzyme Antibody is available for research use only.



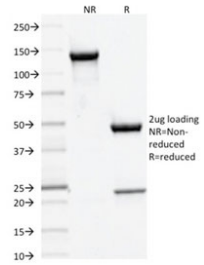
DNMT3A Antibody Placenta IHC. Immunohistochemistry analysis of FFPE human placental tissue using DNMT3A Antibody shows nuclear staining in trophoblast and stromal cell populations, consistent with localization of DNMT3A / DNA methyltransferase 3 alpha as a nuclear epigenetic regulator. Staining is observed within cell nuclei lining placental structures, reflecting active de novo DNA methylation processes during development. Hematoxylin counterstain provides nuclear contrast and tissue architecture. HIER: boil FFPE tissue sections in 1 mM EDTA, pH 9, for 10-20 min and allow to cool before testing.



DNMT3A Antibody Placental Tissue IHC. Immunohistochemistry analysis of FFPE human placental tissue using DNMT3A Antibody shows nuclear staining in trophoblast cells and scattered stromal populations, consistent with localization of DNMT3A / DNA methyltransferase 3 alpha as a nuclear epigenetic regulator. Signal intensity varies across placental regions, with positive nuclei outlining villous structures, reflecting active de novo DNA methylation in developing tissue. Hematoxylin counterstain provides nuclear contrast and tissue architecture. HIER: boil FFPE tissue sections in 1 mM EDTA, pH 9, for 10-20 min and allow to cool before testing.



DNMT3A Antibody HuProt Microarray Specificity. Protein microarray analysis using DNMT3A Antibody (clone PCRP-DNMT3A-1E2) demonstrates highly specific binding to DNMT3A / DNA methyltransferase 3 alpha, with the target protein ranked as the top hit and showing a strong Z score with clear separation from all other proteins on the array. Signal intensity decreases sharply for non-target proteins, supporting selective recognition with minimal off-target interaction. Z score represents the strength of signal in standard deviations above the mean of all array signals, while S score reflects the separation between ranked targets and provides a measure of relative specificity.



SDS-PAGE analysis of purified, BSA-free DNMT3A antibody as confirmation of integrity and purity.

Description

DNA methyltransferase 3 alpha (DNMT3A) is a nuclear enzyme responsible for establishing de novo DNA methylation patterns during development and cellular differentiation. DNMT3A Antibody / De Novo DNA Methylation Enzyme Antibody is designed to detect this key epigenetic regulator in biological systems where chromatin modification and gene expression control are of interest. DNMT3A catalyzes the transfer of methyl groups to cytosine residues within CpG dinucleotides, creating new methylation marks that shape transcriptional programs. This antibody is part of a collection of Human Protein Microarray validated antibodies that have been screened for specificity across thousands of proteins.

DNMT3A antibody, also referred to as DNA methyltransferase 3 alpha antibody in the literature, recognizes a protein localized predominantly in the nucleus, where it participates in chromatin remodeling and transcriptional regulation. DNMT3A functions in concert with DNMT3B and regulatory cofactors to establish methylation patterns during embryogenesis and maintain cell lineage identity. Unlike DNMT1, which preserves existing methylation, DNMT3A is responsible for generating new methylation marks that influence long-term gene silencing.

This DNMT3A Antibody / De Novo DNA Methylation Enzyme Antibody is uniquely positioned for studies of epigenetic programming and developmental biology. DNMT3A plays a critical role in stem cell differentiation, hematopoiesis, and tissue-specific gene regulation. In immunohistochemistry, DNMT3A is typically observed as nuclear staining in proliferating and differentiating cells, reflecting its role in establishing epigenetic states.

Alterations in DNMT3A expression and function are strongly associated with cancer and hematologic malignancies, particularly acute myeloid leukemia, where DNMT3A mutations are among the most frequently observed epigenetic alterations. Dysregulation of DNMT3A activity leads to aberrant DNA methylation patterns and disrupted gene expression, contributing to tumor development and progression. Detection of DNMT3A expression therefore supports investigation of epigenetic dysregulation in disease contexts.

The mouse monoclonal clone PCRP-DNMT3A-1E2 provides reliable detection of DNMT3A, supported by protein microarray specificity validation data demonstrating selective binding to the intended target. This DNMT3A Antibody / De Novo DNA Methylation Enzyme Antibody is suitable for detecting DNMT3A expression in research applications including western blot, immunohistochemistry, and other studies of epigenetic regulation. Its performance supports detailed evaluation of DNMT3A localization and function across diverse biological systems.

This antibody supports investigation of de novo DNA methylation, epigenetic programming, and disease-associated changes in DNMT3A expression. It is part of a broader DNA Methylation antibody panel offered by NSJ Bioreagents.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the DNMT3A Antibody / De Novo DNA Methylation Enzyme Antibody to be titered up or down for optimal performance.

Immunogen

Recombinant full length human protein was used as the immunogen for this DNMT3A antibody.

Storage

Store the DNMT3A antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

DNMT3A antibody, DNA methyltransferase 3 alpha antibody, DNMT3A protein antibody, De novo methyltransferase antibody, Epigenetic methylation enzyme antibody

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