

PRMT3 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1004a**Specification**

PRMT3 Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	O60678
Other Accession	Q922H1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	142-173

PRMT3 Antibody (N-term) - Additional Information**Gene ID** 10196**Other Names**

Protein arginine N-methyltransferase 3, 211-, Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 3, PRMT3, HRMT1L3

Target/Specificity

This PRMT3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 142-173 amino acids from the N-terminal region of human PRMT3.

Dilution

WB~~1:2000

IHC-P~~1:10~50

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PRMT3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PRMT3 Antibody (N-term) - Protein Information**Name** PRMT3 ([HGNC:30163](#))

Function Protein-arginine N-methyltransferase that catalyzes both the monomethylation and asymmetric dimethylation of the guanidino nitrogens of arginine residues in target proteins, and therefore falls into the group of type I methyltransferases (PubMed:[22795084](#), PubMed:[23445220](#), PubMed:[25728001](#), PubMed:[31378783](#), PubMed:[33495566](#), PubMed:[39513743](#)). Catalyzes the asymmetric arginine dimethylation at multiple sites in the Arg/Gly-rich region of small ribosomal subunit protein uS5/RPS2 (PubMed:[22795084](#)). Also appears to methylate other ribosomal proteins (By similarity). May regulate retinoic acid synthesis and signaling by inhibiting ALDH1A1 retinal dehydrogenase activity (PubMed:[33495566](#)). Contributes to methylation of histone H4 'Arg-3', a specific tag for epigenetic transcriptional activation (PubMed:[25728001](#), PubMed:[31378783](#), PubMed:[39513743](#)). Mediates asymmetric arginine dimethylation of histone H4 'Arg-3' (H4R3me2a) in the promoter region of miRNA miR-3648, to promote its transcription and osteogenesis (PubMed:[31378783](#)).

Cellular Location

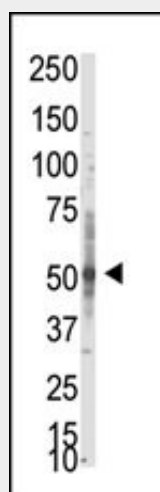
Cytoplasm, cytosol. Nucleus Note=Localized to the nucleus by ZNF200.

PRMT3 Antibody (N-term) - Protocols

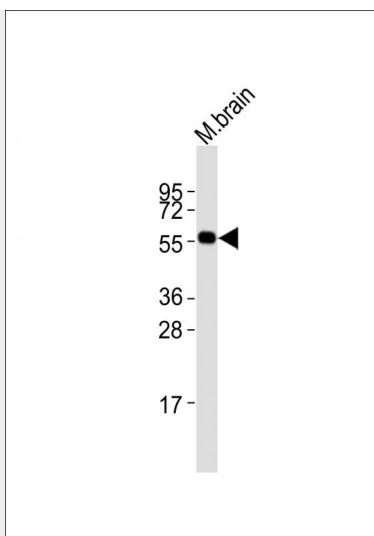
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

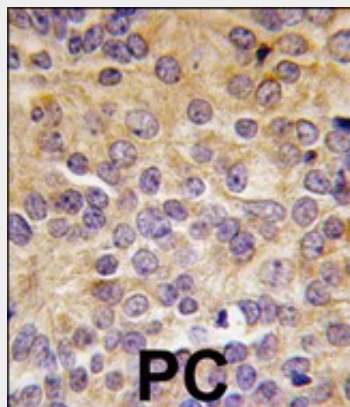
PRMT3 Antibody (N-term) - Images



Western blot analysis of anti-PRMT3 Pab (Cat. #AP1004a) in whole HL60 cell lysate: PRMT3 (Arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Anti-PRMT3 Antibody (S138) at 1:2000 dilution + mouse brain lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 60 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human prostate carcinoma tissue reacted with PRMT3 antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PRMT3 Antibody (N-term) - Background

Arginine methylation is an irreversible post translational modification which has only recently been linked to protein activity. At least three types of PRMT enzymes have been identified in mammalian cells. These enzymes have been shown to have essential regulatory functions by methylation of key proteins in several fundamental areas. These proteins include nuclear proteins, IL enhancer binding factor, nuclear factors, cell cycle proteins, signal transduction proteins, apoptosis proteins, and viral proteins. The mammalian PRMT family currently consists of 7 members that share two large domains of homology. Outside of these domains, epitopes were identified and antibodies against all 7 PRMT members have been developed.

PRMT3 Antibody (N-term) - References

Tang, J., et al., J. Biol. Chem. 273(27):16935-16945 (1998).