

# **Product datasheet**

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ARG41995 anti-PRMT1 antibody

Package: 100 μl Store at: -20°C

## **Summary**

Product Description Rabbit Polyclonal antibody recognizes PRMT1

Tested Reactivity Hu, Ms, Rat

Tested Application ChIP, ICC/IF, IHC-P, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name PRMT1
Species Human

Immunogen Synthetic peptide of Human PRMT1.

Conjugation Un-conjugated

Alternate Names IR1B4; EC 2.1.1.125; ANM1; Protein arginine N-methyltransferase 1; Histone-arginine N-

methyltransferase PRMT1; HCP1; EC 2.1.1.-; Interferon receptor 1-bound protein 4; HRMT1L2

# **Application Instructions**

Application table	Application	Dilution
	ChIP	Assay-dependent
	ICC/IF	1:100 - 1:500
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	NIH/3T3	
Observed Size	~ 42 kDa	

## **Properties**

Form	Liquid	
Purification	Affinity purified.	
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.	
Preservative	0.02% Sodium azide	
Stabilizer	50% Glycerol	
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw	

For laboratory research only, not for drug, diagnostic or other use.

#### Bioinformation

Gene Symbol

PRMT1

Gene Full Name

protein arginine methyltransferase 1

Background

This gene encodes a member of the protein arginine N-methyltransferase (PRMT) family. Post-translational modification of target proteins by PRMTs plays an important regulatory role in many biological processes, whereby PRMTs methylate arginine residues by transferring methyl groups from S-adenosyl-L-methionine to terminal guanidino nitrogen atoms. The encoded protein is a type I PRMT and is responsible for the majority of cellular arginine methylation activity. Increased expression of this gene may play a role in many types of cancer. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene, and a pseudogene of this gene is located on the long arm of chromosome 5. [provided by RefSeq, Dec 2011]

Function

Arginine methyltransferase that methylates (mono and asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in proteins such as ESR1, histone H2, H3 and H4, PIAS1, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15 and EWS. Constitutes the main enzyme that mediates monomethylation and asymmetric dimethylation of histone H4 'Arg-4' (H4R3me1 and H4R3me2a, respectively), a specific tag for epigenetic transcriptional activation. Together with dimethylated PIAS1, represses STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. May be involved in the regulation of TAF15 transcriptional activity, act as an activator of estrogen receptor (ER)-mediated transactivation, play a key role in neurite outgrowth and act as a negative regulator of megakaryocytic differentiation, by modulating p38 MAPK pathway. Methylates FOXO1 and retains it in the nucleus increasing its transcriptional activity. [UniProt]

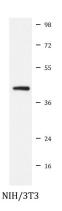
Calculated Mw

42 kDa

**Cellular Localization** 

Nucleus. Nucleus, nucleoplasm. Cytoplasm, cytosol. Note=Mostly found in the cytoplasm. Colocalizes with CHTOP within the nucleus. Low levels detected also in the chromatin fraction (By similarity). [UniProt]

#### **Images**



#### ARG41995 anti-PRMT1 antibody WB image

Western blot: NIH/3T3 cell lysate stained with ARG41995 anti-PRMT1 antibody.