

#### KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody Rabbit monoclonal antibody Catalog # AGI2262

### **Specification**

## **KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody - Product Information**

Application Primary Accession Reactivity Clonality Isotype Calculated MW Gene Name Aliases	WB <u>O60678</u> Human Monoclonal Rabbit IgG Predicted, 60 kDa; observed, 68 kDa KDa PRMT3 PRMT3; Protein Arginine Methyltransferase 3; HRMT1L3; Heterogeneous Nuclear Ribonucleoprotein Methyltransferase-Like
	Protein 3; Protein Arginine N-Methyltransferase 3; HMT1 HnRNP Methyltransferase-Like 3 (S. Cerevisiae);
Immunogen	HMT1 HnRNP Methyltransferase-Like 3; EC 2.1.1.319; EC 2.1.1 A synthesized peptide derived from human
Immunogen	PRMT3

### **KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody - Additional Information**

Gene ID 10196 Other Names Protein arginine N-methyltransferase 3, 2.1.1.319, Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 3 {ECO:000312|HGNC:HGNC:30163}, PRMT3 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=30163" target="\_blank">HGNC:30163</a>)

### **KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody - 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:<a

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href="http://www.uniprot.org/citations/22795084" target="_blank">22795084</a>, PubMed:<a
href="http://www.uniprot.org/citations/23445220" target="_blank">23445220</a>, PubMed:<a
href="http://www.uniprot.org/citations/25728001" target="_blank">25728001</a>, PubMed:<a
href="http://www.uniprot.org/citations/31378783" target="_blank">31378783</a>, PubMed:<a
href="http://www.uniprot.org/citations/31378783" target="_blank">31378783</a>, PubMed:<a
href="http://www.uniprot.org/citations/33495566" target="_blank">33495566</a>, PubMed:<a
href="http://www.uniprot.org/citations/33495566" target="_blank">33495566</a>, PubMed:<a
href="http://www.uniprot.org/citations/33495566" target="_blank">33495566</a>, PubMed:<a
href="http://www.uniprot.org/citations/33495566" target="_blank">33495566</a>, PubMed:<a
href="http://www.uniprot.org/citations/39513743" target="_blank">39513743</a>). Catalyzes
the asymmetric arginine dimethylation at multiple sites in the Arg/Gly-rich region of small
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ribosomal subunit protein uS5/RPS2 (PubMed:<a

href="http://www.uniprot.org/citations/22795084" target="\_blank">22795084</a>). Also appears to methylate other ribosomal proteins (By similarity). May regulate retinoic acid synthesis and signaling by inhibiting ALDH1A1 retinal dehydrogenase activity (PubMed:<a href="http://www.uniprot.org/citations/33495566" target="\_blank">33495566</a>). Contributes to methylation of histone H4 'Arg-3', a specific tag for epigenetic transcriptional activation (PubMed:<a href="http://www.uniprot.org/citations/25728001" target="\_blank">25728001</a>, PubMed:<a href="http://www.uniprot.org/citations/31378783" target="\_blank">31378783</a>, PubMed:<a href="http://www.uniprot.org/citations/31378783" target="\_blank">39513743</a>). 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:<a href="http://www.uniprot.org/citations/31378783" target="\_blank">31378783</a>).

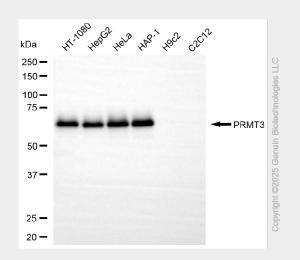
**Cellular Location** Cytoplasm, cytosol. Nucleus Note=Localized to the nucleus by ZNF200.

# KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody - Protocols

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

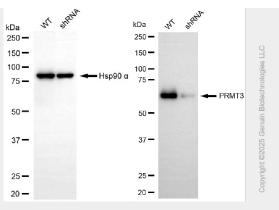
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-PRMT3 antibody (Cat#AGI2262). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PRMT3 antibody (Cat#AGI2262, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.





Western blotting analysis using anti-PRMT3 antibody (Cat#AGI2262). PRMT3 expression in wild-type (WT) and PRMT3 shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-PRMT3 antibody (Cat#AGI2262, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.