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# KD-Validated Anti-PRMT3 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2262

## Product Information

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| **Application** | WB |
| **Primary Accession** | O60678 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | 25GB4430 |
| **Calculated MW** | 59903 |
| **Gene Name** | PRMT3 |
| **Aliases** | 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); HMT1 HnRNP Methyltransferase-Like 3; EC 2.1.1.319; EC 2.1.1 |
| **Immunogen** | A synthesized peptide derived from human PRMT3 |

## Additional Information

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| **Gene ID** | 10196 |
| **Other Names** | Protein arginine N-methyltransferase 3, 2.1.1.319, Heterogeneous nuclear ribonucleoprotein methyltransferase-like protein 3 {ECO:0000312\|HGNC:HGNC:30163}, PRMT3 (HGNC:30163) |

## 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).

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

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