

KMT6 Rabbit mAb

Catalog # AP75656

Product Information

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|--------------------------|------------------------|
| Application | WB, ICC |
| Primary Accession | Q15910 |
| Reactivity | Human, Mouse, Rat |
| Host | Rabbit |
| Clonality | Monoclonal Antibody |
| Calculated MW | 85363 |

Additional Information

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| Gene ID | 2146 |
| Other Names | EZH2 |
| Dilution | WB~1/500-1/1000 ICC~~N/A |
| Format | 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA. |
| Storage | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

Protein Information

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| Name | EZH2 (HGNC:3527) |
| Synonyms | KMT6 |
| Function | Catalytic subunit of the PRC2/EED-EZH2 complex, a Polycomb group (PcG) complex that methylates 'Lys-9' (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene (PubMed: 14532106 , PubMed: 15225548 , PubMed: 15385962 , PubMed: 16618801 , PubMed: 16936726 , PubMed: 17344414 , PubMed: 22323599 , PubMed: 24474760 , PubMed: 26581166 , PubMed: 30026490 , PubMed: 30923826). Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively (PubMed: 15231737 , PubMed: 17210787 , PubMed: 18285464 , PubMed: 22323599 , PubMed: 30923826). Displays a preference for substrates with less methylation, loses activity when progressively more methyl groups are incorporated into H3K27, H3K27me0 > H3K27me1 > H3K27me2 (PubMed: 22323599 , PubMed: 30923826). Compared to EZH1-containing complexes, it is more abundant in embryonic stem cells and plays a major role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation (PubMed: 19026781). The PRC2/EED-EZH2 complex |

may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems (PubMed:[16357870](#), PubMed:[17200670](#)). Genes repressed by the PRC2/EED- EZH2 complex include HOXC8, HOXA9, MYT1, CDKN2A and retinoic acid target genes (PubMed:[16179254](#), PubMed:[18086877](#), PubMed:[20935635](#)). EZH2 can also methylate non-histone proteins such as the transcription factor GATA4 and the nuclear receptor RORA (PubMed:[23063525](#)). Regulates the circadian clock via histone methylation at the promoter of the circadian genes (PubMed:[16717091](#)). Essential for the CRY1/2-mediated repression of the transcriptional activation of PER1/2 by the CLOCK- BMAL1 heterodimer; involved in the di and trimethylation of 'Lys-27' of histone H3 on PER1/2 promoters which is necessary for the CRY1/2 proteins to inhibit transcription (By similarity).

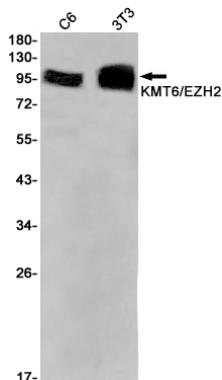
Cellular Location

Nucleus. Note=Localizes to the inactive X chromosome in trophoblast stem cells. {ECO:0000250|UniProtKB:Q61188}

Tissue Location

In the ovary, expressed in primordial follicles and oocytes and also in external follicle cells (at protein level) (PubMed:31451685). Expressed in many tissues (PubMed:14532106) Overexpressed in numerous tumor types including carcinomas of the breast, colon, larynx, lymphoma and testis (PubMed:14532106)

Images



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