

KMT6 / EZH2 Antibody

Rabbit mAb

Catalog # AP90983

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	Q15910
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	EZH 2; EZH1; EZH2; EZH2b; KMT 6; KMT6; KMT6A;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	85363

Additional Information

Dilution	WB 1:500~1:1000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1 : 50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human KMT6 / EZH2
Description	Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' and 'Lys-27' of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. Compared to EZH2-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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	EZH2 (HGNC:3527)
Synonyms	KMT6
Function	Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates 'Lys-9' (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. 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. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXC8, HOXA9, MYT1, CDKN2A and retinoic acid target genes. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4 and the nuclear receptor RORA. Regulates the circadian clock via histone methylation at the promoter of the circadian genes. 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.

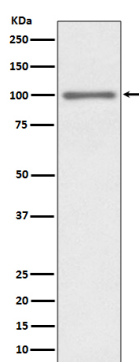
Cellular Location

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



Western blot analysis of KMT6 / EZH2 expression in HEK293 cell lysate.

Image not found : 202311/AP90983-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human tonsil, using KMT6 / EZH2 Antibody.

Image not found : 202311/AP90983-IF.jpg

Immunofluorescent analysis of Hela cells, using KMT6 / EZH2 Antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.