

## EZH2

Rabbit Monoclonal antibody(Mab)  
Catalog # AD80174

### Product Information

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<b>Application</b>	IHC-P
<b>Primary Accession</b>	<a href="#">Q15910</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	658B1F3
<b>Calculated MW</b>	85363

### Additional Information

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<b>Gene ID</b>	2146
<b>Gene Name</b>	EZH2 ( <a href="#">HGNC:3527</a> )
<b>Other Names</b>	Histone-lysine N-methyltransferase EZH2, 2.1.1.356, ENX-1, Enhancer of zeste homolog 2, Lysine N-methyltransferase 6, EZH2 ( <a href="#">HGNC:3527</a> ), KMT6
<b>Dilution</b>	IHC-P~~N/A
<b>Storage</b>	Maintain refrigerated at 2-8°C.
<b>Precautions</b>	EZH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Protein Information

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<b>Name</b>	EZH2 ( <a href="#">HGNC:3527</a> )
<b>Synonyms</b>	KMT6
<b>Function</b>	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: <a href="#">14532106</a> , PubMed: <a href="#">15225548</a> , PubMed: <a href="#">15385962</a> , PubMed: <a href="#">16618801</a> , PubMed: <a href="#">16936726</a> , PubMed: <a href="#">17344414</a> , PubMed: <a href="#">22323599</a> , PubMed: <a href="#">24474760</a> , PubMed: <a href="#">26581166</a> , PubMed: <a href="#">30026490</a> , PubMed: <a href="#">30923826</a> ). Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively (PubMed: <a href="#">15231737</a> , PubMed: <a href="#">17210787</a> , PubMed: <a href="#">18285464</a> , PubMed: <a href="#">22323599</a> , PubMed: <a href="#">30923826</a> ). Displays a preference for substrates with less methylation, loses activity when progressively more methyl groups are incorporated into H3K27, H3K27me0 > H3K27me1 > H3K27me2 (PubMed: <a href="#">22323599</a> , PubMed: <a href="#">30923826</a> ). 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)

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