

# EZH2 Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AW5436

## Product Information

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Application	WB
Primary Accession	<a href="#">Q15910</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	85363
Isotype	Rabbit IgG
Antigen Source	HUMAN

## Additional Information

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Gene ID	2146
Other Names	Histone-lysine N-methyltransferase EZH2, ENX-1, Enhancer of zeste homolog 2, Lysine N-methyltransferase 6, EZH2, KMT6
Dilution	WB~~1:1000
Target/Specificity	This EZH2 antibody is generated from rabbits immunized with a recombinant protein from human EZH2.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EZH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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Name	EZH2 ( <a href="#">HGNC:3527</a> )
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: <a href="#">14532106</a> , PubMed: <a href="#">15225548</a> , PubMed: <a href="#">15385962</a> ,

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)

## Background

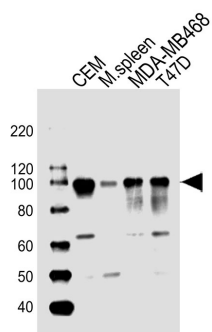
EZH2 is a protein that transfers sulfate to the C-4 hydroxyl of beta-1,4-linked GalNAc flanked by GlcUA residues in chondroitin.

## References

Kang,H.G., et.al., J. Biol. Chem. 277 (38), 34766-34772 (2002)  
Hiraoka,N., et.al., J. Biol. Chem. 275 (26), 20188-20196 (2000)

## Images

All lanes : Anti-EZH2 Antibody at 1:1000 dilution Lane 1: CEM whole cell lysates Lane 2: mouse spleen lysates Lane 3: MDA-MB468 whole cell lysates Lane 4: T47D whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 85 kDa Blocking/Dilution buffer: 5% NFDm/TBST.



## Citations

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- [Impact of Enhancer of Zeste Homolog 2 on T Helper Cell-Mediated Allergic Rhinitis.](#)

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