

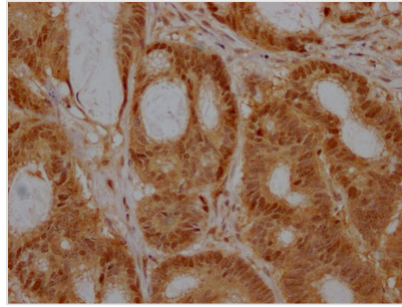


# EZH2 Antibody

<b>Product Code</b>	CSB-RA218051A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	Q15910
<b>Immunogen</b>	A synthesized peptide derived from human KMT6 / EZH2
<b>Species Reactivity</b>	Human
<b>Tested Applications</b>	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
<b>Relevance</b>	<p>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 &gt; H3K27me1 &gt; H3K27me2 (PubMed:22323599). 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-ARNTL/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.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Epigenetics and Nuclear Signaling; Cancer
<b>Gene Names</b>	EZH2
<b>Accession NO.</b>	10H8



## Image



IHC image of CSB-RA218051A0HU diluted at 1:100 and staining in paraffin-embedded human colon cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

EZH2 is the catalytic subunit of the PRC2 complex that mainly regulates gene silencing through catalyzing the trimethylation of lysine 27 of histone H3 (H3K27me3). It is involved in the modulation of tumor development and malignancy, stem cell renewal and development, immune response, cell senescence, cell cycle progression, and autophagy, among other biological processes. Dysregulation of EZH2 causes alteration of gene expression and functions, thereby promoting cancer development. EZH2 also functions as a transcriptional coactivator in the absence of H3K27me3 and is implicated in cancer initiation, development, and progression.

The main steps in the production of this EZH2 recombinant antibody include immunization; harvest of positive spleen cells; obtaining the antibody sequence by screening and sequencing; expression of the target antibody in mammalian cells; purification. The EZH2 antibody was produced recombinantly and has many advantages: high reproducibility, specificity and scalability. And has been validated in ELISA, IHC.