EZH2 (Phospho Thr311) Rabbit pAb

CatalogNo: YP1332

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat	• WB

MW	Isotype
• 82kD (Observed)	• IgG

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:1000-2000

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized phosho peptide around human Ezh2 (Thr311)
Specificity	This antibody detects endogenous levels of Human Ezh2 (phospho-Thr311)

Target Information

Gene name	EZH2 KMT6

Protein Name EZH2 (Thr311)

Organism	Gene ID	UniProt ID
Human	2146;	Q15910;
Mouse	14056;	Q61188;

Cellular Localization Nucleus . Localizes to the inactive X chromosome in trophoblast stem cells. .

Tissue specificity 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).

Function Catalytic activity:S-adenosyl-L-methionine + histone L-lysine = S-adenosyl-L-homocysteine + histone N(6)-methyl-L-lysine.,Caution:Two variants of the PRC2 complex have been described, termed PRC3 and PRC4. Each of the three complexes may include a different complement of EED isoforms, although the precise sequences of the isoforms in each complex have not been determined. The PRC2 and PRC4 complexes may also methylate 'Lys-26' of histone H1 in addition to 'Lys-27' of histone H3 (PubMed:15099518 and PubMed:15684044), although other studies have demonstrated no methylation of 'Lys-26' of histone H1 by PRC2 (PubMed:16431907).,developmental stage:Expression decreases during senescence of embryonic fibroblasts (HEFs). Expression peaks at the G1/S phase boundary.,Function: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. 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 and CDKN2A.,induction:Expression is induced by E2F1, E2F2 and E2F3. Expression is reduced in cells subject to numerous types of stress including UV-, IR- and bleomycin-induced DNA damage and by activation of TP53/p53.,PTM:Phosphorylated by AKT1. Phosphorylation by AKT1 reduces methyltransferase activity.,similarity:Belongs to the histone-lysine methyltransferase family. EZ subfamily.,similarity:Contains 1 SET domain.,subunit:Binds ATRX via the SET domain (Probable). Component of the PRC2/EED-EZH2 complex, which includes EED, EZH2, SUZ12, RBBP4 and RBBP7 and possibly AEBP2. The minimum components required for methyltransferase activity of the PRC2/EED-EZH2 complex are EED, EZH2 and SUZ12. The PRC2 complex may also interact with DNMT1, DNMT3A, DNMT3B and PHF1 via the EZH2 subunit and with SIRT1 via the SUZ12 subunit. Interacts with HDAC1 and HDAC2.,tissue specificity:Expressed in many tissues. Overexpressed in numerous tumor types including carcinomas of the breast, colon, larynx, lymphoma and testis.,

Validation Data

Contact information

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Please scan the QR code to access additional product information:
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