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Rabbit Anti-phospho-EZH2 (Thr487) antibody

SL6529R

Product Name:	phospho-EZH2 (Thr487)
Chinese Name:	磷酸化抑癌蛋白EZH2抗体
Alias:	KMT6/EZH2(phospho T487); KMT6/EZH2(phospho Thr487); p-KMT6/EZH2(phospho T487); p-KMT6/EZH2(Thr487); KMT6 / EZH2 (phospho Thr487); p-KMT6/EZH2(T487); Enhancer of zeste homolog 2; Enx1h; MGC9169; Enhancer of zeste 2; ENX-1; ENX 1; ENX1; EZH1; EZH2; EZH 2; EZH2_HUMAN; Histone-lysine N-methyltransferase EZH2; KMT6A; Lysine N-methyltransferase 6; Enhancer of zeste homolog 2 (Drosophila); Enhancer of zeste, Drosophila, homolog 2; KMT 6; KMT6; KMT6A; WVS2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	82kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human KMT6 around the phosphorylation site of Thr487:VD(p-T)PP
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:	PubMed
Product Detail:	This gene encodes a member of the Polycomb-group (PcG) family. PcG family members form multimeric protein complexes, which are involved in maintaining the transcriptional repressive state of genes over successive cell generations. This protein associates with the embryonic ectoderm development protein, the VAV1 oncoprotein, and the X-linked nuclear protein. This protein may play a role in the hematopoietic and central nervous systems. Multiple alternatively splcied transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Feb 2011]. **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. 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, CDKN2A and retinoic acid target genes. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4. **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. Interacts with PRAME. **Subcellular Location:** Nucleus. **Tissue Specificity:** Expressed in many tissues. Overexpressed in numerous tumor types including carcinomas of the breast, colon, larynx, lymphoma and testis. **Post-translational modifications:** Phosphorylated by AKT1. Phosphorylation by AKT1 reduces methyltransferase activity. Phosphorylation at Thr-345 by CDK1 and CDK2 promotes maintenance of H3K27me3 levels at EZH2-target loci, thus leading to epigenetic gene silencing. Sumoylated. **Similarity:** Belongs to the histone-lysine methyltransferase family. EZ subfamily.

Contains 1 CXC domain.
Contains 1 SET domain.

SWISS:
Q15910

Gene ID:
2146

Database links:

Entrez Gene: 2146Human

Entrez Gene: 14056Mouse

Entrez Gene: 312299Rat

Omim: 601573Human

SwissProt: Q15910Human

SwissProt: Q61188Mouse

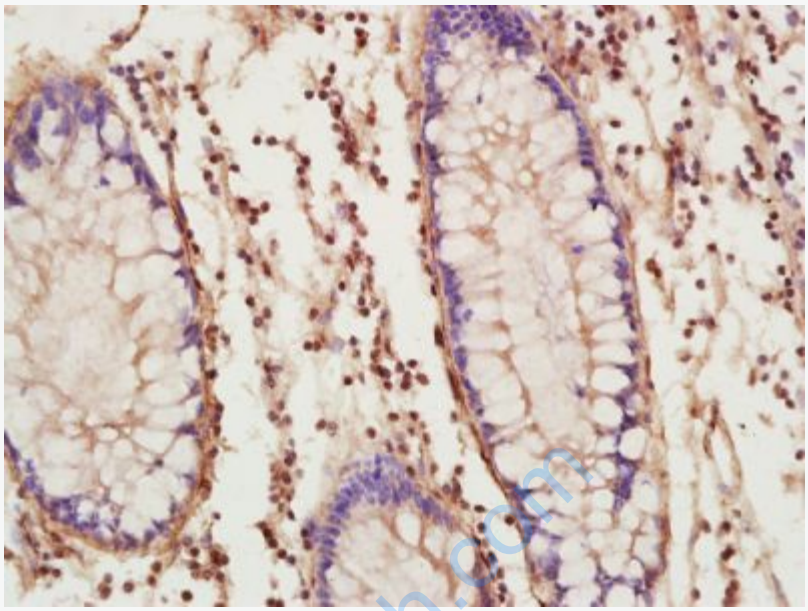
Unigene: 444082Human

Unigene: 246688Mouse

Unigene: 9027Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

EZH2（enhancer of zeste homolog 2）是新识别的一种人类基因，是果蝇zeste基因增强子的人类同源基因，Polycomb group基因家族的重要成员之一。
EZH2在多种Tumour中高表达，具有促进细胞增殖，Tumour细胞的扩散的恶性表型，EZH2在Tumour中的作用成为研究热门。EZHZ在前列腺癌、乳腺癌、膀胱癌、肝细胞癌、大肠癌、胃癌中高表达;局限性前列腺癌、乳腺癌、膀胱癌高表达EZH2，则临床预后较差。因此EZH2可作为TumourMaker监测Tumour的演变。随着PcG蛋白和TrxG蛋白复合物研究的深入，对细胞记忆机制的认识不断提高，而扰乱细胞的转录记忆系统可导致个体发育缺陷，使正常细胞丢失自身特性而癌变。
EZH2通过基因沉默机制改变细胞的记忆系统并调控转录，促进前Tumour恶性形成。EZH2在Tumour发生发展中的作用仍远未阐明,特别是EZH2的下游基因仍不清楚，EZH2在Tumour发生与发展的机制有待进一步研究。

Picture:	 Paraformaldehyde-fixed, paraffin embedded (Human colorectal cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-EZH2 (Thr487)) Polyclonal Antibody, Unconjugated (SL6529R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.