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EED Rabbit pAb

Catalog # AP100187

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O75530
Other Accession	O75530
Predicted	Rat, Pig, Human, Mouse, Rabbit, Zebrafish, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50198
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EED
Epitope Specificity	51-150/441
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the WD repeat ESC family. Contains 7 WD repeats.
SUBUNIT	Interacts with MLL (By similarity). 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. Component of the PRC2/EED-EZH1 complex, which includes EED, EZH1, SUZ12, RBBP4 and AEBP2. 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 HDAC, HDAC2, histone H1 and YY1. May interact with ITGA4, ITGAE and ITGB7. May interact with the MA protein of HIV-1.
Post-translational modifications	Methylated. Binding to histone H1 'Lys-26' promotes mono-, di-, and trimethylation of internal lysines.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The transcriptional repressing Polycomb-group (PcG) and transcriptional activating trithorax-group (trxG) genes of Drosophila are part of a cellular memory system responsible for the stable inheritance of gene activity. PcG proteins assemble into multimeric protein complexes, which are involved in maintaining the transcriptional repressive state of genes over successive cell generations. EED (embryonic ectoderm development) is the human homolog of Eed, a murine PcG gene homologous to the Drosophila homeotic gene, extra sex combs. The human EED protein is 99. 5% identical to the mouse EED protein and contains seven WD repeats, which are involved in protein-protein interactions. There are two human EED transcripts that contain a putative 407-nucleotide-long intron and give rise to two HEED protein isoforms, 535 and 494 amino acids in length. EED interacts in a highly specific manner, both in vitro and in vivo, with histone deacetylase (HDAC) proteins.

Additional Information

Gene ID	8726
Other Names	COGIS; HEED; WAIT1; l(7)5Rn; l7Rn5; lusk; XELAEV_18016352mg; Xeed; Xeed-B; eed; eed-a; eed-b; psXEED; EED_CHICK; EED_BOVIN; EED_HUMAN; Embryonic ectoderm development protein; WD protein associating with integrin cytoplasmic tails 1 (WAIT-1); EED_MOUSE; EEDA_XENLA; Xeed-A; embryonic ectoderm development; WD protein associating with integrin cytoplasmic tails 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	EED (HGNC:3188)
Function	Polycomb group (PcG) protein. Component 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. Also recognizes 'Lys-26' trimethylated histone H1 with the effect of inhibiting PRC2 complex methyltransferase activity on nucleosomal histone H3 'Lys-27', whereas H3 'Lys-27' recognition has the opposite effect, enabling the propagation of this repressive mark. 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.
Cellular Location	Nucleus. Chromosome. Note=Transiently colocalizes with XIST at inactive X chromosomes
Tissue Location	Expressed in brain, colon, heart, kidney, liver, lung, muscle, ovary, peripheral blood leukocytes, pancreas, placenta, prostate, spleen, small intestine, testis, thymus and uterus. Appears to be overexpressed in breast and colon cancer

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