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EED Antibody

Catalog # ASC11536

Product Information

Application	WB, IF, E
Primary Accession	O75530
Other Accession	NP_003788, 24041020
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	50198
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	EED antibody can be used for detection of EED by Western blot at 1 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	8726
Other Names	Polycomb protein EED, hEED, WD protein associating with integrin cytoplasmic tails 1, WAIT-1, EED
Target/Specificity	EED; Four alternatively spliced transcript variants have been observed.
Reconstitution & Storage	EED antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	EED Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

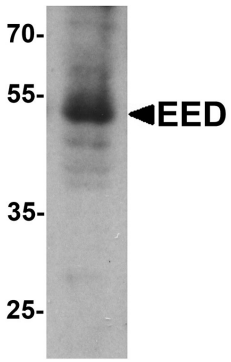
Background

EED Antibody: The EED protein (WAIT-1 or WD protein associated with integrin cytoplasmic tails-1), also called embryonic ectoderm development, is a member of the superfamily of WD-40 repeat proteins and widely conserved polycomb group (PcG) family of proteins. The polycomb group (PcG) is a large and evolutionarily conserved set of genes whose products act in multimeric complexes to modify histones, which are then thought to cause stable and heritable states of transcriptional repression. EED shuttles between the nucleus and the plasma membrane and can interact with the cytoplasmic tail of integrin β7 subunit. EED exerted an antiviral activity at the late stage of HIV-1 replication.

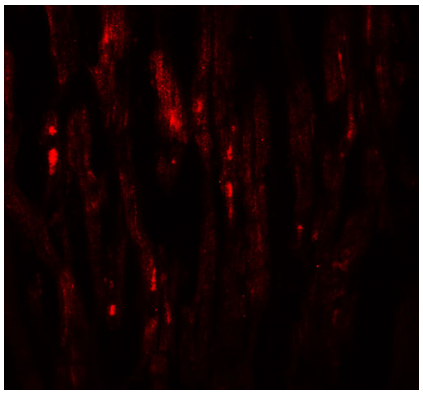
References

Rietzler M, Bittner M, Kolanus W, et al. The human WD repeat protein WAIT-1 specifically interacts with the cytoplasmic tails of beta7-integrins. J. Biol. Chem. 1998; 273:27459-66.
Brock HW and Fisher CL. Maintenance of gene expression patterns. Dev Dyn. 2005; 232:633-55.
Levine SS, King IF, Kingston RE, et al. Division of labor in polycomb group repression. Trends Biochem. Sci. 2004; 29: 478-85.
Van der Vlag J and Otte AP. Transcriptional repression mediated by the human Polycomb-group protein EED involves histone deacetylation. Nat. Genet.1999; 23:474-8.

Images



Western blot analysis of EED in human heart tissue lysate with Eed antibody at 1 µg/mL.



Immunofluorescence of EED in human heart tissue with EED antibody at 20 µg/mL.

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