EED Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	EED, Monoclonal Antibody
Full Product Name	EED (Polycomb Protein EED, hEED, WD Protein Associating with Integrin Cytoplasmic Tails 1, WAIT-1) (MaxLight 550)
Product Gene Name	anti-EED antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	3B12
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight550.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human EED.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight550 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	45,524 Da
OMIM	605984
3D Structure	ModBase 3D Structure for O75530
Immunogen	Partial recombinant corresponding to aa342-441 from EED (NP_003788) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	KIKPSESNVTILGRFDYSQCDIWYMRFSMDFWQKMLALGNQVGKLYVWDLEVEDPHKAKCTTLTHHKCGAAIRQTSFSRDSSILIAVCDDASIWRWDRLR
Conjugate	MaxLight550
Product Categories/Family for anti-EED antibody	Antibodies; Stem Cell Research
Applications Tested/Suitable for anti-EED antibody	FLISA, Western Blot (WB)
Application Notes for anti-EED antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-EED antibody	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.
Other Notes	Small volumes of anti-EED antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for EED purchase	MBS6211273 is an antibody targeting EED. Also known as EED (Polycomb Protein EED, hEED, WD Protein Associating with Integrin Cytoplasmic Tails 1, WAIT-1) (MaxLight 550). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EED. It may not necessarily be applicable to this product.

NCBI GI #	24041020
NCBI GeneID	8726
NCBI Accession #	NP_003788.2
UniProt Primary Accession #	O75530
UniProt Secondary Accession #	O00149; Q6NTH2; Q7LDA5; Q7LDG8; Q86VV2; Q9UNY7; A8K7V5
UniProt Related Accession #	O75530
GenBank Nucleotide #	NM_003797
NCBI Official Full Name	polycomb protein EED isoform a
NCBI Official Synonym Full Names	embryonic ectoderm development
NCBI Official Symbol	EED
NCBI Official Synonym Symbols	HEED; WAIT1
UniProt Protein Name	Polycomb protein EED
UniProt Synonym Protein Names	WD protein associating with integrin cytoplasmic tails 1; WAIT-1
Protein Family	Polycomb protein
UniProt Gene Name	EED
UniProt Synonym Gene Names	hEED; WAIT-1
UniProt Entry Name	EED_HUMAN
NCBI Protein Information	polycomb protein EED; WD protein associating with integrin cytoplasmic tails 1
NCBI Summary for EED	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 interacts with enhancer of zeste 2, the cytoplasmic tail of integrin beta7, immunodeficiency virus type 1 (HIV-1) MA protein, and histone deacetylase proteins. This protein mediates repression of gene activity through histone deacetylation, and may act as a specific regulator of integrin function. Two transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for EED	EED: a member of the superfamily of Polycomb group (PcG) methyltransferase proteins with WD-40 repeats. PcG complexes mediate chromatin modifications that contribute to transcriptional silencing during development and carcinogenesis. A part of the Polycomb-repressive complex 2 (PRC2) along with EZH2, SUZ12, RBBP4 and RBBP7 and possibly AEBP2. Interacts with HDAC, HDAC2, histone H1 and YY1. PRC2 trimethylates histone H3 on K9 and K27, transcriptionally repressing target gene including HOXC8, HOXA9, MYT1 and CDKN2A. Appears to be overexpressed in breast and colon cancers. Inhibitors of PRC2-mediated gene repression are being investigated as a cancer therapy. EED and EZH2 are also implicated in the silencing of the inactive X chromosome. Three human isoforms produced by alternative splicing or initiation have been described, and additional isoforms may be produced by alternative initiation. Protein type: Methyltransferase Chromosomal Location of Human Ortholog: 11q14.2-q22.3 Cellular Component: nucleoplasm; sex chromatin; pronucleus; ESC/E(Z) complex; cytoplasm; nucleolus; nucleus Molecular Function: histone methyltransferase activity; identical protein binding; protein binding; chromatin binding Biological Process: histone methylation; genetic imprinting; transcription, DNA-dependent; negative regulation of gene expression, epigenetic; gene expression; negative regulation of transcription, DNA-dependent; regulation of gene expression, epigenetic
Research Articles on EED	**1.** EED, a component of Polycomb repressive complex-2 (PRC2) that catalyzes methylation of lysine 27 of histone H3 (H3K27), was involved in epithelial-mesenchymal transition (EMT) of cancer cells induced by Transforming Growth Factor-beta (TGF-beta).
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