

Store at  
-20C  
#51673**EED Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	50-70	Rabbit	#O75530	8726

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

EED Antibody recognizes endogenous levels of total EED protein. This antibody also cross-reacts with an unidentified protein of 42 kDa.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human EED protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

The polycomb group (PcG) proteins contribute to the maintenance of cell identity, stem cell self-renewal, cell cycle regulation and oncogenesis by maintaining the silenced state of genes that promote cell lineage specification, cell death and cell-cycle arrest (1-4). PcG proteins exist in two complexes that cooperate to maintain long-term gene silencing through epigenetic chromatin modifications. The first complex, EED-EZH2, is recruited to genes by DNA-binding transcription factors and methylates histone H3 on Lys27. Methylation of Lys27 facilitates the recruitment of the second complex, PRC1, which ubiquitinylates histone H2A on Lys119 (5). Embryonic ectoderm development protein (EED) is a component of the PRC2 complex, which together with Ezh2 and SUZ12 is absolutely required for histone methyl-transferase activity (6). EED, SUZ12 and EZH2 are overexpressed in various types of cancer, including tumors of the colon, breast, prostate and ovary (7-9).

**Background References**

1. Boyer, L.A. et al. (2006) *Nature* 441, 349-53.
2. Lee, T.I. et al. (2006) *Cell* 125, 301-13.
3. Cao, R. et al. (2002) *Science* 298, 1039-43.
4. Müller, J. et al. (2002) *Cell* 111, 197-208.
5. Wang, H. et al. (2004) *Nature* 431, 873-8.
6. Cao, R. and Zhang, Y. (2004) *Mol Cell* 15, 57-67.
7. Kirmizis, A. et al. (2003) *Mol Cancer Ther* 2, 113-21.
8. Kirmizis, A. et al. (2004) *Genes Dev* 18, 1592-605.
9. Yu, H. et al. (2012) *PLoS One* 7, e51239.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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