

EED (H-300): sc-28701

BACKGROUND

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 2 human EED transcripts that contain a putative 407-nucleotide-long intron and give rise to 2 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.

CHROMOSOMAL LOCATION

Genetic locus: EED (human) mapping to 11q14.2; Eed (mouse) mapping to 7 E1.

SOURCE

EED (H-300) is a rabbit polyclonal antibody raised against amino acids 142-441 mapping at the C-terminus of EED of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EED (H-300) is recommended for detection of EED of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EED (H-300) is also recommended for detection of EED in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for EED siRNA (h): sc-37823, EED siRNA (m): sc-37824, EED shRNA Plasmid (h): sc-37823-SH, EED shRNA Plasmid (m): sc-37824-SH, EED shRNA (h) Lentiviral Particles: sc-37823-V and EED shRNA (m) Lentiviral Particles: sc-37824-V.

Molecular Weight of EED isoforms 1/2/3: 50/53/46 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

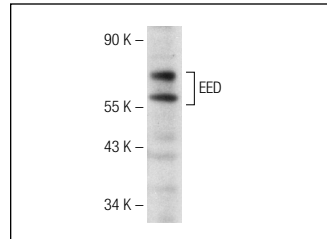
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

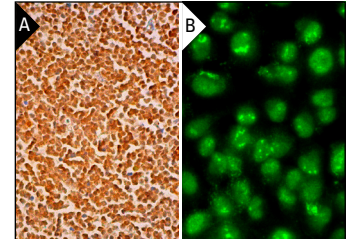
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



EED (H-300): sc-28701. Western blot analysis of EED expression in K-562 whole cell lysate.



EED (H-300): sc-28701. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear and cytoplasmic staining of cells in germinal centers and cells in non-germinal centers (A). Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear and nucleolar localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School (B).

SELECT PRODUCT CITATIONS

- Jacob, E., et al. 2008. Unconventional association of the polycomb group proteins with cytokine genes in differentiated T helper cells. *J. Biol. Chem.* 283: 13471-13481.
- Ernst, T., et al. 2010. Inactivating mutations of the histone methyltransferase gene EZH2 in myeloid disorders. *Nat. Genet.* 42: 722-726.
- Qian, T., et al. 2010. Id1 enhances RING1b E3 ubiquitin ligase activity through the Mel-18/Bmi-1 polycomb group complex. *Oncogene* 29: 5818-5827.
- Score, J., et al. 2012. Inactivation of polycomb repressive complex 2 components in myeloproliferative and myelodysplastic/myeloproliferative neoplasms. *Blood* 119: 1208-1213.
- Ren, G., et al. 2012. Polycomb protein EZH2 regulates tumor invasion via the transcriptional repression of the metastasis suppressor RKIP in breast and prostate cancer. *Cancer Res.* 72: 3091-3104.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **EED (3B12): sc-293203**, our highly recommended monoclonal alternative to EED (H-300).