

EPC1 (D-6): sc-373840

BACKGROUND

Enhancer of Polycomb 1 (EPC1) is a member of the Polycomb group (PcG) proteins. EPC1 interacts with the transcriptional repressor E2F6. In proliferating cells, the proliferation-specific PcG, EZH2, associates with this E2F6-EPC1 complex, which may regulate genes required for cell cycle promotion. EPC1 also interacts with a member of the RING finger protein family (RFP), and this complex functions as a transcriptional repressor. Lastly, EPC1 is a component of the NuA4 histone acetyltransferase (HAT) complex, which transcriptionally activates certain genes by acetylation of Histones H4 and H2A. This acetylation may alter nucleosome-DNA interactions and promote interaction of the modified histones with other positive transcription regulators. The HAT complex may play a role in oncogene/proto-oncogene growth induction, tumor suppressor growth arrest, replicative senescence, apoptosis and DNA repair.

REFERENCES

1. Shimono, Y., et al. 2000. RET finger protein is a transcriptional repressor and interacts with enhancer of Polycomb that has dual transcriptional functions. *J. Biol. Chem.* 275: 39411-39419.
2. Tezel, G., et al. 2002. Role for O-glycosylation of RFP in the interaction with enhancer of Polycomb. *Biochem. Biophys. Res. Commun.* 290: 409-414.
3. Li, J., et al. 2004. Recombinant antigens for immunodiagnosis of cystic echinococcosis. *Biol. Proced. Online* 6: 67-77.
4. Doyon, Y., et al. 2004. Structural and functional conservation of the NuA4 histone acetyltransferase complex from yeast to humans. *Mol. Cell. Biol.* 24: 1884-1896.

CHROMOSOMAL LOCATION

Genetic locus: EPC1 (human) mapping to 10p11.22; Epc1 (mouse) mapping to 18 A1.

SOURCE

EPC1 (D-6) is a mouse monoclonal antibody raised against amino acids 683-785 mapping near the C-terminus of EPC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-373840 X, 200 µg/0.1 ml.

EPC1 (D-6) is available conjugated to agarose (sc-373840 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373840 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373840 PE), fluorescein (sc-373840 FITC), Alexa Fluor® 488 (sc-373840 AF488), Alexa Fluor® 546 (sc-373840 AF546), Alexa Fluor® 594 (sc-373840 AF594) or Alexa Fluor® 647 (sc-373840 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373840 AF680) or Alexa Fluor® 790 (sc-373840 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

EPC1 (D-6) is recommended for detection of EPC1 isoforms 1-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for EPC1 siRNA (h): sc-60589, EPC1 siRNA (m): sc-60590, EPC1 shRNA Plasmid (h): sc-60589-SH, EPC1 shRNA Plasmid (m): sc-60590-SH, EPC1 shRNA (h) Lentiviral Particles: sc-60589-V and EPC1 shRNA (m) Lentiviral Particles: sc-60590-V.

EPC1 (D-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

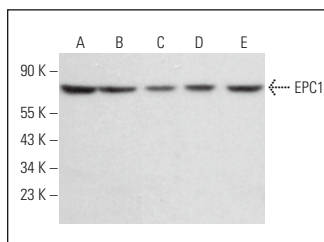
Molecular Weight of EPC1: 92 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, PC-12 cell lysate: sc-2250 or A-10 cell lysate: sc-3806.

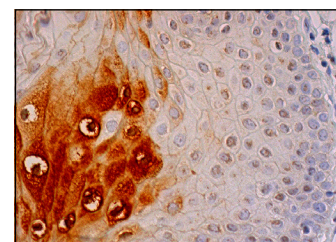
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



EPC1 (D-6): sc-373840. Western blot analysis of EPC1 expression in RAW 264.7 (A), PC-12 (B), A-10 (C), Sol8 (D) and c4 (E) whole cell lysates.



EPC1 (D-6): sc-373840. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing either nuclear or nuclear and cytoplasmic staining of squamous epithelial cells.

RESEARCH USE

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

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