

EPC1 (C-20): sc-48152

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., Murakami, H., Hasegawa, Y. and Takahashi, M. 2001. 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., Shimono, Y., Murakumo, Y., Kawai, K., Fukuda, T., Iwashashi, N. and Takahashi, M. 2002. Role for O-glycosylation of RFP in the interaction with enhancer of polycomb. *Biochem. Biophys. Res. Commun.* 290: 409-414.
3. Li, J., Zhang W.B. and McManus, D.P. 2004. Recombinant antigens for immunodiagnosis of cystic echinococcosis. *Biol. Proced. Online* 6: 67-77.
4. Doyon, Y., Selleck, W., Lane, W.S., Tan, S. and Côte, J. 2004. Structural and functional conservation of the NuA4 histone acetyltransferase complex from yeast to humans. *Mol. Cell. Biol.* 24: 1884-1896.
5. Williams, N.E. 2004. The epiplasm gene EPC1 influences cell shape and cortical pattern in *Tetrahymena thermophila*. *J. Eukaryot. Microbiol.* 51: 201-206.
6. Attwooll, C., Oddi, S., Cartwright, P., Prosperini, E., Agger, K., Steensgaard, P., Wagener, C., Sardet, C., Moroni, M.C. and Helin, K. 2005. A novel repressive E2F6 complex containing the polycomb group protein, EPC1, that interacts with EZH2 in a proliferation-specific manner. *J. Biol. Chem.* 280: 1199-1208.

CHROMOSOMAL LOCATION

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

SOURCE

EPC1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EPC1 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-48151 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-48151 X, 200 µg/0.1 ml.

APPLICATIONS

EPC1 (C-20) is recommended for detection of EPC1 isoforms 1-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EPC1 (C-20) is also recommended for detection of EPC1 isoforms 1-4 in additional species, including equine, canine, bovine, porcine and avian.

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 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of EPC1: 92 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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


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Try **EPC1 (D-6): sc-373840**, our highly recommended monoclonal alternative to EPC1 (C-20).