SANTA CRUZ BIOTECHNOLOGY, INC.

PELP1 (D-5): sc-393534

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The estrogen receptor (ER) plays an important role in cancer progression. PELP1/MNAR (proline-, glutamic acid- and leucine-rich protein-1/modulator of non-genomic activity of estrogen receptor), a novel coregulatory protein, modulates genomic as well as nongenomic activity of estrogen receptors. PELP1 plays an essential role in the proliferation of cancerous endometrial cells. PELP1 expression, in both the stroma and epithelial cells, and localization are widely deregulated in endometrial cancers. In addition, PELP1 and ER β localize predominantly in the cytoplasm of high-grade endometrial tumors. PELP1 coactivates ER-mediated transcription and also serves as a corepressor of other nuclear hormone receptors (NR)- and non-NR sequence-specific transcription factors, including GR, Nur77, AP1, NFκB, and TCF/SRF. PELP1 participates in chromatin remodeling activity via displacement of histone 1 in cancer cells and is expressed in all stages of endometrium.

REFERENCES

1. Balasenthil, S. and Vadlamudi, R.K. 2003. Functional interactions between the estrogen receptor co-activator PELP1/MNAR and retinoblastoma protein. J. Biol. Chem. 278: 22119-22127.
2. Choi, Y.B., Ko, J.K. and Shin, J. 2004. The transcriptional corepressor, PELP1, recruits HDAC2 and masks histones using two separate domains. J. Biol. Chem. 279: 50930-50941.
3. Nair, S.S., Mishra, S.K., Yang, Z., Balasenthil, S., Kumar, R. and Vadlamudi, R.K. 2004. Potential role of a novel transcriptional co-activator PELP1 in Histone H1 displacement in cancer cells. Cancer Res. 64: 6416-6423.
4. Mishra, S.K., Balasenthil, S., Nguyen, D. and Vadlamudi, R.K. 2004. Cloning and functional characterization of PELP1/MNAR promoter. Gene 330: 115-122.
5. Vadlamudi, R.K., Balasenthil, S., Broaddus, R.R., Gustafsson, J.A. and Kumar, R. 2004. Deregulation of estrogen receptor co-activator proline-, glutamic acid- and leucine-rich protein-1/modulator of non-genomic activity of estrogen receptor in human endometrial tumors. J. Clin. Endocrinol. Metab. 89: 6130-6138.

CHROMOSOMAL LOCATION

Genetic locus: PELP1 (human) mapping to 17p13.2; Pelp1 (mouse) mapping to 11 B3.

SOURCE

PELP1 (D-5) is a mouse monoclonal antibody raised against amino acids 39-338 mapping near the N-terminus of PELP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

PELP1 (D-5) is recommended for detection of PELP1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PELP1 siRNA (h): sc-45287, PELP1 siRNA (m): sc-45288, PELP1 shRNA Plasmid (h): sc-45287-SH, PELP1 shRNA Plasmid (m): sc-45288-SH, PELP1 shRNA (h) Lentiviral Particles: sc-45287-V and PELP1 shRNA (m) Lentiviral Particles: sc-45288-V.

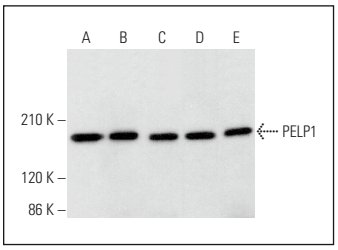
Molecular Weight of PELP1: 160 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218, BT-20 cell lysate: sc-2223 or MCF7 whole cell lysate: sc-2206.

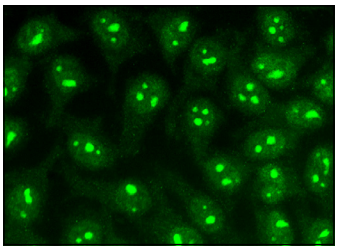
RECOMMENDED SUPPORT REAGENTS

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.

DATA



PELP1 (D-5): sc-393534. Western blot analysis of PELP1 expression in MCF7 (**A**), SK-BR-3 (**B**), BT-20 (**C**), M1 (**D**) and A-10 (**E**) whole cell lysates.



PELP1 (D-5): sc-393534. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization.

SELECT PRODUCT CITATIONS

1. Crow, M.S. and Cristea, I.M. 2017. Human antiviral protein IFIX suppresses viral gene expression during HSV-1 infection and is counteracted by virus-induced proteasomal degradation. Mol. Cell. Proteomics 16: S200-S214.

STORAGE

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