

PELP1 (OX-19): sc-81974

BACKGROUND

The estrogen receptor 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 (ER)], a novel co-regulatory 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 co-activates ER-mediated transcription and also serves as a corepressor of other nuclear hormone receptors (NR)- and non NR-sequence-specific transcription factors tested, including GR, Nur77, AP1, NF κ B and TCF/SRF. PELP1 participates in chromatin remodeling activity via displacement of Histone 1 in cancer cells. PELP1 is expressed in all stages of endometrium.

REFERENCES

- 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.
- 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.
- 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.
- Mishra, S.K., Balasenthil, S., Nguyen, D. and Vadlamudi, R.K. 2004. Cloning and functional characterization of PELP1/MNAR promoter. *Gene* 330: 115-122.
- 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 (OX-19) is a mouse monoclonal antibody raised against recombinant PELP1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

PELP1 (OX-19) is recommended for detection of PELP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] 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: RAW 264.7 whole cell lysate: sc-2211, mouse testis extract: sc-2405 or HeLa whole cell lysate: sc-2200.

RESEARCH USE

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

PROTOCOLS

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