SANTA CRUZ BIOTECHNOLOGY, INC.

LRP16 (Q-14): sc-243327

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

LRP16, also known as MACROD1 (MACRO domain-containing protein 1), is a 325 amino acid protein that contains one MACRO domain and acts as an essential cofactor of androgen receptor. By binding to androgen receptor (AR), LRP16 amplifies the transactivation function of AR in response to androgen. LRP16 may play an important role in carcinogenesis and/or progression of hormone-dependent cancers by a feed-forward mechanism that activates ERα (estrogen receptor α) transactivation. LRP16 could also be involved in invasive growth by down-regulating E-cadherin in endometrial cancer cells. The gene that encodes LRP16 consists of approximately 167,556 bases and maps to human chromosome 11q13.1.

REFERENCES

1. Han, W.D., et al. 2001. The application of RACE technique to clone the full-length cDNA of a novel leukemia associated gene LRP16. Zhongguo Shi Yan Xue Ye Xue Za Zhi 9: 18-21.
2. Han, W.D., et al. 2003. Up-regulation of LRP16 mRNA by 17β-estradiol through activation of estrogen receptor α (ERα), but not ERβ, and promotion of human breast cancer MCF-7 cell proliferation: a preliminary report. Endocr. Relat. Cancer 10: 217-224.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610400. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Meng, Y.G., et al. 2007. Induction of the LRP16 gene by estrogen promotes the invasive growth of Ishikawa human endometrial cancer cells through the downregulation of E-cadherin. Cell Res. 17: 869-880.
5. Han, W.D., et al. 2007. Estrogenically regulated LRP16 interacts with estrogen receptor α and enhances the receptor's transcriptional activity. Endocr. Relat. Cancer 14: 741-753.
6. Imagama, S., et al. 2007. LRP16 is fused to RUNX1 in monocytic leukemia cell line with t(11;21)(q13;q22). Eur. J. Haematol. 79: 25-31.
7. Yang, J., et al. 2009. The single-macro domain protein LRP16 is an essential cofactor of androgen receptor. Endocr. Relat. Cancer 16: 139-153.
8. Tian, L., et al. 2009. Differential induction of LRP16 by liganded and unliganded estrogen receptor α in SKOV3 ovarian carcinoma cells. J. Endocrinol. 202: 167-177.

CHROMOSOMAL LOCATION

Genetic locus: MACROD1 (human) mapping to 11q13.1; Macrod1 (mouse) mapping to 19 A.

SOURCE

LRP16 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LRP16 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-243327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRP16 (Q-14) is recommended for detection of LRP16 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LRP16 (Q-14) is also recommended for detection of LRP16 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for LRP16 siRNA (h): sc-96535, LRP16 siRNA (m): sc-149046, LRP16 shRNA Plasmid (h): sc-96535-SH, LRP16 shRNA Plasmid (m): sc-149046-SH, LRP16 shRNA (h) Lentiviral Particles: sc-96535-V and LRP16 shRNA (m) Lentiviral Particles: sc-149046-V.

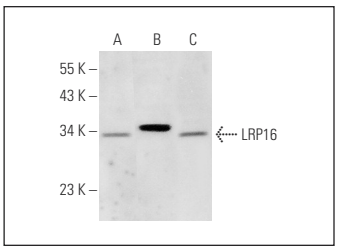
Molecular Weight of LRP16: 36 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



LRP16 (Q-14): sc-243327. Western blot analysis of LRP16 expression in HeLa (**A**), Jurkat (**B**) and NIH/3T3 (**C**) whole cell lysates.

RESEARCH USE

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