

LEPREL4 (D-13): sc-138485

BACKGROUND

The synaptonemal complex (SC) is a meiosis-specific nuclear organelle that is involved in chromosomal rearrangements, such as chromosome pairing and recombination, during meiotic prophase. Specifically, the SC forms between two chromosomes during meiosis and serves as a structural bridge that unites homologous chromosomes and mediates chromosomal synapsis and crossing-over. NOL55 (Nucleolar autoantigen No55), also known as SC65 (synaptonemal complex protein SC65) or nucleolar protein No55, is a 437 amino acid protein that localizes to the particulate compartment of the nucleolus during interphase and to the granular compartment and the surface of chromosomes during mitosis. Expressed in normal ovary, prostate and pancreatic tissues and in human prostate cancer cell lines, NOL55 is thought to play an important role in proper cell cycle progression and may serve as a potential antigen for the detection of prostate cancer.

REFERENCES

- Chen, Q., et al. 1992. Isolation and characterization of a cDNA encoding a synaptonemal complex protein. *Biochem. Cell Biol.* 70: 1030-1038.
- Ochs, R.L., et al. 1996. cDNA cloning and characterization of a novel nucleolar protein. *Mol. Biol. Cell* 7: 1015-1024.
- Fossá, A., et al. 2000. Identification of nucleolar protein No55 as a tumour-associated autoantigen in patients with prostate cancer. *Br. J. Cancer* 83: 743-749.
- De Marchis, L., et al. 2004. Candidate target genes for loss of heterozygosity on human chromosome 17q21. *Br. J. Cancer* 90: 2384-2389.
- Comtesse, N., et al. 2005. Complex humoral immune response against a benign tumor: frequent antibody response against specific antigens as diagnostic targets. *Proc. Natl. Acad. Sci. USA* 102: 9601-9606.
- Wang, Y., et al. 2006. Tyrosine phosphorylated Par3 regulates epithelial tight junction assembly promoted by EGFR signaling. *EMBO J.* 25: 5058-5070.

CHROMOSOMAL LOCATION

Genetic locus: LEPREL4 (human) mapping to 17q21.2; Leprel4 (mouse) mapping to 11 D.

SOURCE

LEPREL4 (D-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LEPREL4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138485 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

LEPREL4 (D-13) is recommended for detection of LEPREL4 of human and mouse origin and Sc65 of rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other NOL family members.

Suitable for use as control antibody for LEPREL4 siRNA (h): sc-94183, LEPREL4 siRNA (m): sc-153240, LEPREL4 shRNA Plasmid (h): sc-94183-SH, LEPREL4 shRNA Plasmid (m): sc-153240-SH, LEPREL4 shRNA (h) Lentiviral Particles: sc-94183-V and LEPREL4 shRNA (m) Lentiviral Particles: sc-153240-V.

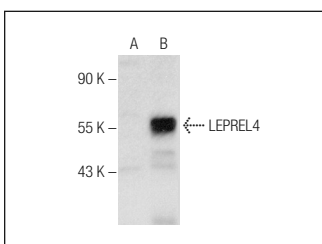
Molecular Weight of LEPREL4: 55 kDa.

Positive Controls: LEPREL4 (h): 293 Lysate: sc-175130, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LEPREL4 (D-13): sc-138485. Western blot analysis of LEPREL4 expression in non-transfected: sc-110760 (A) and human LEPREL4 transfected: sc-175130 (B) 293 whole cell lysates.

RESEARCH USE

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

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Try **LEPREL4 (21): sc-136332** or **LEPREL4 (F-7): sc-514276**, our highly recommended monoclonal alternatives to LEPREL4 (D-13).