



SLIRP (F-12): sc-103881

BACKGROUND

SLIRP (SRA stem-loop-interacting RNA-binding protein), also known as DC50 or C14orf156, is a 109 amino acid mitochondrial protein that localizes to the nucleus and is ubiquitously expressed, with highest levels in heart, liver, skeletal muscle and testis. Containing a single RRM (RNA recognition motif) domain, SLIRP acts as a nuclear receptor corepressor and binds the STR7 loop of SRA RNA. In addition to repressing the SRA-mediated nuclear receptor coactivation, SLIRP is also able to repress glucocorticoid (GR), androgen (AR), thyroid (TR) and VDR-mediated transactivation. It is suggested that SLIRP may regulate mitochondrial function and augment the effect of Tamoxifen, a drug that acts as an antagonist of the estrogen receptor and inhibits receptor activity. The gene encoding SLIRP is located on human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome.

REFERENCES

1. Klinge, C.M., Jernigan, S.C., Mattingly, K.A., Risinger, K.E. and Zhang, J. 2004. Estrogen response element-dependent regulation of transcriptional activation of estrogen receptors α and β by coactivators and corepressors. *J. Mol. Endocrinol.* 33: 387-410.
2. Hatchell, E.C., Colley, S.M., Beveridge, D.J., Epis, M.R., Stuart, L.M., Giles, K.M., Redfern, A.D., Miles, L.E., Barker, A., MacDonald, L.M., Arthur, P.G., Lui, J.C., Golding, J.L., McCulloch, R.K., Metcalf, C.B., Wilce, J.A., Wilce, M.C., Lanz, R.B., O'Malley, B.W. and Leedman, P.J. 2006. SLIRP, a small SRA binding protein, is a nuclear receptor corepressor. *Mol. Cell.* 22: 657-668.
3. Shamovsky, I. and Nudler, E. 2006. Gene control by large noncoding RNAs. *Sci. STKE.* 2006: pe40.
4. Colley, S.M., Iyer, K.R. and Leedman, P.J. 2008. The RNA coregulator SRA, its binding proteins and nuclear receptor signaling activity. *IUBMB Life* 60: 159-164.
5. Colley, S.M. and Leedman, P.J. 2009. SRA and its binding partners: an expanding role for RNA-binding coregulators in nuclear receptor-mediated gene regulation. *Crit. Rev. Biochem. Mol. Biol.* 44: 25-33.
6. Ponce-Balbuena, D., López-Izquierdo, A., Ferrer, T., Rodríguez-Menchaca, A.A., Arechiga-Figueroa, I.A. and Sánchez-Chapula, J.A. 2009. Tamoxifen inhibits inward rectifier K^+ 2.x family of inward rectifier channels by interfering with phosphatidylinositol 4,5-bisphosphate-channel interactions. *J. Pharmacol. Exp. Ther.* 331: 563-573.
7. Chung, S.H. and Lambert, P.F. 2009. Prevention and treatment of cervical cancer in mice using estrogen receptor antagonists. *Proc. Natl. Acad. Sci. USA* 106: 19467-19472.

CHROMOSOMAL LOCATION

Genetic locus: C14orf156 (human) mapping to 14q24.3; 1810035L17Rik (mouse) mapping to 12 D2.

SOURCE

SLIRP (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLIRP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-103881 P, (100 μ g 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-103881 X, 200 μ g/0.1 ml.

APPLICATIONS

SLIRP (F-12) is recommended for detection of SLIRP 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).

Suitable for use as control antibody for SLIRP siRNA (h): sc-92406, SLIRP siRNA (m): sc-106554, SLIRP shRNA Plasmid (h): sc-92406-SH, SLIRP shRNA Plasmid (m): sc-106554-SH, SLIRP shRNA (h) Lentiviral Particles: sc-92406-V and SLIRP shRNA (m) Lentiviral Particles: sc-106554-V.

SLIRP (F-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SLIRP: 12 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

STORAGE

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

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.