

SLIRP (B-12): sc-514508

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., et al. 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., et al. 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., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: Slirp (mouse) mapping to 12 D2.

SOURCE

SLIRP (B-12) is a mouse monoclonal antibody raised against amino acids 1-112 representing full length SLIRP of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514508 X, 200 μ g/0.1 ml.

SLIRP (B-12) is available conjugated to agarose (sc-514508 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514508 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514508 PE), fluorescein (sc-514508 FITC), Alexa Fluor® 488 (sc-514508 AF488), Alexa Fluor® 546 (sc-514508 AF546), Alexa Fluor® 594 (sc-514508 AF594) or Alexa Fluor® 647 (sc-514508 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514508 AF680) or Alexa Fluor® 790 (sc-514508 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SLIRP (B-12) is recommended for detection of SLIRP of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 SLIRP siRNA (m): sc-106554, SLIRP shRNA Plasmid (m): sc-106554-SH and SLIRP shRNA (m) Lentiviral Particles: sc-106554-V.

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

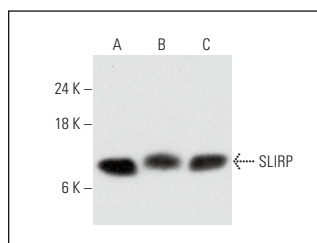
Molecular Weight of SLIRP: 12 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Sol8 cell lysate: sc-2249 or c4 whole cell lysate: sc-364186.

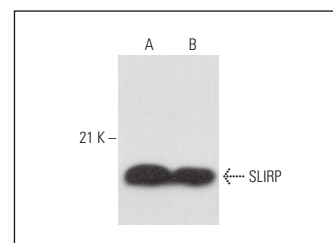
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



SLIRP (B-12): sc-514508. Western blot analysis of SLIRP expression in NIH/3T3 (A), Sol8 (B) and c4 (C) whole cell lysates.



SLIRP (B-12): sc-514508. Western blot analysis of SLIRP expression in Neuro-2A (A) and BC₃H1 (B) whole cell lysates.

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 for detailed protocols and support products.