

SRA (C-5): sc-271377

BACKGROUND

Steroid receptor RNA activator (SRA) selectively mediates transactivation of steroid hormone receptors. Specifically, SRA exists as both an RNA transcript that forms a complex with steroid receptor coactivator-1 and as a stably expressed protein. There are six RNA motifs in SRA that are important for coactivation. SRA is ubiquitously expressed in normal tissues with higher levels of expression in liver and skeletal muscle. SRA is expressed at a low level in brain. SRA is expressed at higher levels in breast tumor than in normal tissue. Overexpression of SRA stimulates ER α transcriptional activity. In cells transfected with antisense oligodeoxynucleotides to SRA, ER α expression is reduced in a dose-dependent fashion. SMRT/HDAC1 associated repressor protein (SHARP) binds to SRA and inhibits SRA-potentiated steroid receptor transcription.

REFERENCES

- Lanz, R.B., et al. 1999. A steroid receptor coactivator, SRA, functions as an RNA and is present in an SRC-1 complex. *Cell* 97: 17-27.
- Murphy, L.C., et al. 2000. Altered expression of estrogen receptor co-regulators during human breast tumorigenesis. *Cancer Res.* 60: 6266-6271.
- Shi, Y., et al. 2001. SHARP, an inducible cofactor that integrates nuclear receptor repression and activation. *Genes Dev.* 15: 1140-1151.
- Watanabe, M., et al. 2001. A subfamily of RNA-binding DEAD-box proteins acts as an estrogen receptor α coactivator through the N-terminal activation domain (AF-1) with an RNA coactivator, SRA. *EMBO J.* 20: 1341-1352.
- Lanz, R.B., et al. 2002. Distinct RNA motifs are important for coactivation of steroid hormone receptors by steroid receptor RNA activator (SRA). *Proc. Natl. Acad. Sci. USA* 99: 16081-16086.
- Cavarretta, I.T., et al. 2002. Reduction of coactivator expression by antisense oligodeoxynucleotides inhibits ER α transcriptional activity and MCF-7 proliferation. *Mol. Endocrinol.* 16: 253-270.
- Emberley, E., et al. 2003. Identification of new human coding steroid receptor RNA activator isoforms. *Biochem. Biophys. Res. Commun.* 301: 509-515.

CHROMOSOMAL LOCATION

Genetic locus: SRA1 (human) mapping to 5q31.3; Sra1 (mouse) mapping to 18 B2.

SOURCE

SRA (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 8-41 near the N-terminus of SRA of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271377 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SRA (C-5) is recommended for detection of SRA of mouse, rat and human 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 SRA siRNA (h): sc-38461, SRA siRNA (m): sc-38462, SRA shRNA Plasmid (h): sc-38461-SH, SRA shRNA Plasmid (m): sc-38462-SH, SRA shRNA (h) Lentiviral Particles: sc-38461-V and SRA shRNA (m) Lentiviral Particles: sc-38462-V.

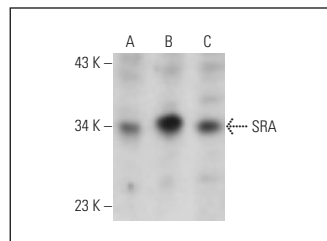
Molecular Weight of SRA: 35 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, SRA (m2): 293T Lysate: sc-123773 or NRK whole cell lysate: sc-364197.

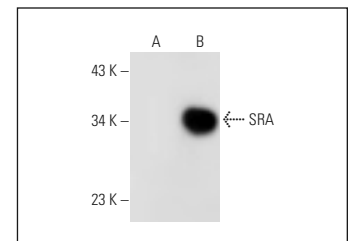
RECOMMENDED SUPPORT REAGENTS

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



SRA (C-5): sc-271377. Western blot analysis of SRA expression in NIH/3T3 (A), 3T3-L1 (B) and NRK (C) whole cell lysates.



SRA (C-5): sc-271377. Western blot analysis of SRA expression in non-transfected: sc-117752 (A) and mouse SRA transfected: sc-123773 (B) 293T 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.