

SRA (N-20): sc-26839

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 and 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. The gene encoding human SRA maps to chromosome 5q31.3.

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 coregulators during human breast tumorigenesis. *Cancer Res.* 60: 6266-6271.
- Watanabe, M., et al. 2001. A subfamily of RNA-binding DEAD-box proteins acts as an estrogen receptor alpha coactivator through the N-terminal activation domain (AF-1) with an RNA coactivator, SRA. *EMBO J.* 20: 1341-1352.
- Shi, Y., et al. 2001. Sharp, an inducible cofactor that integrates nuclear receptor repression and activation. *Genes Dev.* 15: 1140-1151.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

SRA (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SRA of mouse 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-26839 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SRA (N-20) is recommended for detection of SRA of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

SRA (N-20) is also recommended for detection of SRA in additional species, including equine, canine, bovine and porcine.

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.

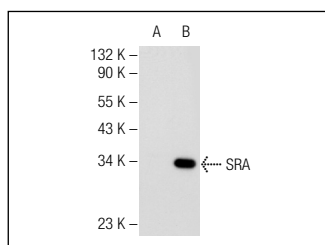
Molecular Weight of SRA: 35 kDa.

Positive Controls: SRA (m2): 293T Lysate: sc-123773, rat skeletal muscle extract: sc-364810 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 MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerTM 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 UltraCruzTM Mounting Medium: sc-24941.

DATA



SRA (N-20): sc-26839. Western blot analysis of SRA expression in non-transfected: sc-117752 (A) and mouse SRA transfected: sc-123773 (B) 293T whole cell lysates.

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.