SANTA CRUZ BIOTECHNOLOGY, INC.

SRA (E-5): sc-393240

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 ERα transcriptional activity. In cells transfected with antisense oligodeoxynucleotides to SRA, ERα expression is reduced in a dose-dependent fashion. SMRT/HDAC1 associated repressor protein (SHARP) binds to SRA and inhibits SRA-potentiated steroid receptor transciption.

REFERENCES

1. 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.
2. Murphy, L.C., et al. 2000. Altered expression of estrogen receptor coregulators during human breast tumorigenesis. Cancer Res. 60: 6266-6271.
3. Shi, Y., et al. 2001. Sharp, an inducible cofactor that integrates nuclear receptor repression and activation. Genes Dev. 15: 1140-1151.
4. 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.
5. Cavarretta, I.T., et al. 2002. Reduction of coactivator expression by antisense oligodeoxynucleotides inhibits ERα transcriptional activity and MCF7 proliferation. Mol. Endocrinol. 16: 253-270.

CHROMOSOMAL LOCATION

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

SOURCE

SRA (E-5) is a mouse monoclonal antibody raised against amino acids 1-220 representing full length SRA of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SRA (E-5) is available conjugated to agarose (sc-393240 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393240 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393240 PE), fluorescein (sc-393240 FITC), Alexa Fluor® 488 (sc-393240 AF488), Alexa Fluor® 546 (sc-393240 AF546), Alexa Fluor® 594 (sc-393240 AF594) or Alexa Fluor® 647 (sc-393240 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393240 AF680) or Alexa Fluor® 790 (sc-393240 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SRA (E-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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

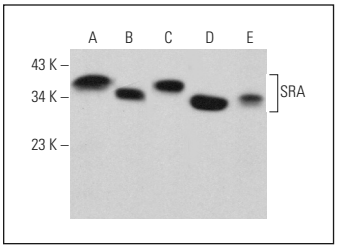
Molecular Weight of SRA: 35 kDa.

Positive Controls: MCF7 nuclear extract: sc-2149, MCF7 whole cell lysate: sc-2206 or NIH/3T3 whole cell lysate: sc-2210.

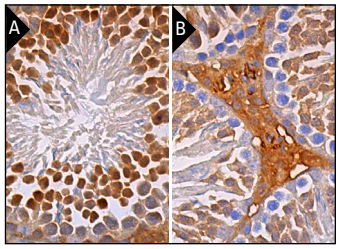
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SRA (E-5): sc-393240. Western blot analysis of SRA expression in NIH/3T3 (**A**) and MCF7 (**B**) whole cell lysates, NIH/3T3 (**C**) and MCF7 (**D**) nuclear extracts and rat breast tissue extract (**E**).



SRA (E-5): sc-393240. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse testis (**A**) and rat testis (**B**) tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts and Leydig cells.

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.