

SRA (m2): 293T Lysate: sc-123773

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

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 co-regulators 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. 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.
6. Cavarretta, I.T., et al. 2002. Reduction of coactivator expression by antisense oligodeoxynucleotides inhibits ER α transcriptional activity and MCF7 proliferation. *Mol. Endocrinol.* 16: 253-270.
7. 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 (mouse) mapping to 18 B2.

PRODUCT

SRA (m2): 293T Lysate represents a lysate of mouse SRA transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

SRA (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SRA antibodies. Recommended use: 10-20 μ l per lane.

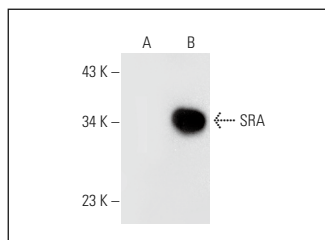
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SRA (C-5): sc-271377 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SRA expression in SRA transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

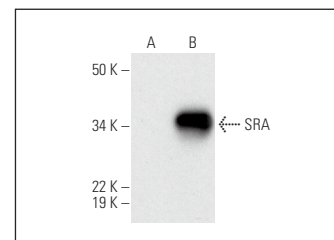
RECOMMENDED SUPPORT REAGENTS

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.

DATA



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.



SRA (E-5): sc-393240. 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.