SANTA CRUZ BIOTECHNOLOGY, INC.

SERTAD3 siRNA (h): sc-97275

BACKGROUND

SERTAD3 (SERTA domain containing 3), also known as RBT1 or replication protein-binding *trans*-activator (RPA-binding *trans*-activator), is a 196 amino acid nuclear protein that functions as a transcriptional coactivator and interacts with RPA 32. Like other members of the SERTAD family, SERTAD3 contains a SERTA domain, N-terminal cyclin A-binding motif, PHD-bromo interacting domain and a C-terminal activation domain. Through an E2-F dependent mechanism, SERTAD3 participates in oncogenesis, and is encoded by a gene that maps to human chromosome 19q13.2. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

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3. Cho, J.M., et al. 2000. RBT1, a novel transcriptional co-activator, binds the second subunit of replication protein A. Nucleic Acids Res. 28: 3478-3485.
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5. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
6. Leeb, T. and Müller, M. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. Gene 343: 239-244.
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8. Darwish, H., et al. 2007. Overexpression of SERTAD3, a putative oncogene located within the 19q13 amplicon, induces E2F activity and promotes tumor growth. Oncogene 26: 4319-4328.
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CHROMOSOMAL LOCATION

Genetic locus: SERTAD3 (human) mapping to 19q13.2.

PROTOCOLS

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

PRODUCT

SERTAD3 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SERTAD3 shRNA Plasmid (h): sc-97275-SH and SERTAD3 shRNA (h) Lentiviral Particles: sc-97275-V as alternate gene silencing products.

For independent verification of SERTAD3 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-97275A, sc-97275B and sc-97275C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SERTAD3 siRNA (h) is recommended for the inhibition of SERTAD3 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SERTAD3 gene expression knockdown using RT-PCR Primer: SERTAD3 (h)-PR: sc-97275-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.