SANTA CRUZ BIOTECHNOLOGY, INC.

SSBP3 siRNA (h): sc-88054

BACKGROUND

The single-stranded-DNA-binding proteins (SSBs) are essential for DNA function in prokaryotic and eukaryotic cells, as well as in mitochondria, bacteria and viruses. SSBP3 (single stranded DNA binding protein 3), also known as CSDP or SSDP, is a 388 amino acid protein that localizes to the nucleus and contains one LisH domain. Highly expressed in spleen, bone marrow, thymus, lymph node, kidney, brain, heart and skeletal muscle, SSBP3 binds to the single-stranded polypyrimidine sequences in the promotor of COLA2 genes and is thought to regulate the transcription of COLA2 genes. SSBP3 is expressed as multiple alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SSBP3 (human) mapping to 1p32.3.

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.

PRODUCT

SSBP3 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 SSBP3 shRNA Plasmid (h): sc-88054-SH and SSBP3 shRNA (h) Lentiviral Particles: sc-88054-V as alternate gene silencing products.

For independent verification of SSBP3 (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-88054A, sc-88054B and sc-88054C.

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

SSBP3 siRNA (h) is recommended for the inhibition of SSBP3 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 SSBP3 gene expression knockdown using RT-PCR Primer: SSBP3 (h)-PR: sc-88054-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.