SANTA CRUZ BIOTECHNOLOGY, INC.

SFI1 siRNA (h): sc-76488

BACKGROUND

SFI1, also known as PISD, is a 1,242 amino acid protein belonging to the SFI1 family. Subcellularly localized to the centrosome, SFI1 interacts with centrin-2 via a conserved Trp residue in the C-terminal end of SFI1. Via this interaction with centrin-2, SFI1 plays a role in the dynamic structure of centrosome-associated contractile fibers. SFI1 also contains six HAT repeats, which may be involved in protein-protein interactions. SFI1 is expressed as seven isoforms produced by alternative splicing. SFI1 has been found to be expressed in brain, testis, uterus and lung.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 31-39.
2. Kilmartin, J.V. 2003. Sfi1p has conserved centrin-binding sites and an essential function in budding yeast spindle pole body duplication. J. Cell Biol. 162: 1211-1221.
3. Carroll, et al. 2005. Chromosome-wide mapping of estrogen receptor binding reveals long-range regulation requiring the forkhead protein FoxA1. Cell 122: 33-43.
4. Rual, J.F., et al. 2005. Towards a proteome-scale map of the human protein-protein interaction network. Nature 437: 1173-1178.
5. Martinez-Sanz, J., et al. 2006. Binding of human centrin 2 to the centrosomal protein hSfi1. FEBS J. 273: 4504-4515.

CHROMOSOMAL LOCATION

Genetic locus: SFI1 (human) mapping to 22q12.2.

PRODUCT

SFI1 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 SFI1 shRNA Plasmid (h): sc-76488-SH and SFI1 shRNA (h) Lentiviral Particles: sc-76488-V as alternate gene silencing products.

For independent verification of SFI1 (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-76488A, sc-76488B and sc-76488C.

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

SFI1 siRNA (h) is recommended for the inhibition of SFI1 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 SFI1 gene expression knockdown using RT-PCR Primer: SFI1 (h)-PR: sc-76488-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.

PROTOCOLS

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