SANTA CRUZ BIOTECHNOLOGY, INC.

1110054O05Rik siRNA (m): sc-108187

BACKGROUND

The SOSS (sensor of single-strand DNA) complex consists of multiple proteins that promote DNA repair and G_2/M checkpoint downstream of the MRN (Mre11, Rad50 and Nbs1) complex. The complex is composed of SSBP1, INTS3 and C9orf80. Specifically, the SOSS complex binds to ssDNA at DNA lesions that influences diverse endpoints in the cellular DNA damage response. The complex is required for efficient homologous recombination-dependent repair of double-stranded breaks and ATM-dependent signaling pathways. C9orf80, also known as SOSS complex subunit C and single-stranded DNA-binding protein-interacting protein 1 (SSBIP1), is a 104 amino acid nuclear protein that is a component of the SOSS complex. Upon DNA damage, C9orf80 along with other components of the SOSS complex migrate to the nucleus. There are two isoforms of C9orf80 that are produced as a result of alternative splicing events.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Inip (mouse) mapping to 4 B3.

PRODUCT

1110054O05Rik siRNA (m) 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 1110054O05Rik shRNA Plasmid (m): sc-108187-SH and 1110054O05Rik shRNA (m) Lentiviral Particles: sc-108187-V as alternate gene silencing products.

For independent verification of 1110054O05Rik (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-108187A, sc-108187B and sc-108187C.

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

1110054O05Rik siRNA (m) is recommended for the inhibition of 1110054O05Rik expression in mouse 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 1110054O05Rik gene expression knockdown using RT-PCR Primer: 1110054O05Rik (m)-PR: sc-108187-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.