SANTA CRUZ BIOTECHNOLOGY, INC.

AMN1 siRNA (m): sc-141051

BACKGROUND

AMN1 (antagonist of mitotic exit network 1 homolog) is a 258 amino acid protein belonging to the AMN1 family. Encoded by a gene that maps to human chromosome 12p11.21, AMN1 contains 12 degenerate leucine-rich repeat (LRR) motifs and modulates Ste12 binding to promoters of multiple genes. As a daughter cell-specific protein, AMN1 inhibits ELL function to deactivate the mitotic exit state and reset the cell cycle in G_1. AMN1 does not halt mitotic exit, but turns it off afterward. Induced by ELL after exit activation, AMN1 disrupts TEM1-Cdc15 interaction by competing with Cdc15 for TEM1 binding and by facilitating inactivation of Cdc14. Defects in AMN1 can result in disruption of both the spindle assembly and nuclear orientation checkpoints. AMN1 may also mediate gene activity and phenotypic diversity.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Amn1 (mouse) mapping to 6 G3.

PRODUCT

AMN1 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 AMN1 shRNA Plasmid (m): sc-141051-SH and AMN1 shRNA (m) Lentiviral Particles: sc-141051-V as alternate gene silencing products.

For independent verification of AMN1 (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-141051A, sc-141051B and sc-141051C.

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

AMN1 siRNA (m) is recommended for the inhibition of AMN1 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 AMN1 gene expression knockdown using RT-PCR Primer: AMN1 (m)-PR: sc-141051-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.