SANTA CRUZ BIOTECHNOLOGY, INC.

cyclin M3 siRNA (h): sc-77063

BACKGROUND

The ADCP (ancient conserved domain protein) family is evolutionarily conserved in diverse species and likely function in ion transport in mammalian cells. Cyclin M3, also known as metal transporter CNNM3 and ACDP3, is a 707 amino acid multi-pass membrane protein that shares weak sequence similarity with cyclin proteins, yet displays no cyclin-like function *in vivo*. Though ubiquitously expressed, Cyclin M3 is found at highest levels in kidney, brain, spleen and heart. Cyclin M3 is localized to the nucleus where it is likely a metal transporter. Cyclin M3 contains two CBS domains, which appear to bind ligands with an adenosyl group such as AMP, ATP and S-AdoMet and may play a regulatory role in sensitizing proteins to adenosyl-carrying ligands. There are three isoforms of Cyclin M3 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CNNM3 (human) mapping to 2q11.2.

PRODUCT

cyclin M3 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 cyclin M3 shRNA Plasmid (h): sc-77063-SH and cyclin M3 shRNA (h) Lentiviral Particles: sc-77063-V as alternate gene silencing products.

For independent verification of cyclin M3 (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-77063A, sc-77063B and sc-77063C.

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

cyclin M3 siRNA (h) is recommended for the inhibition of cyclin M3 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 cyclin M3 gene expression knockdown using RT-PCR Primer: cyclin M3 (h)-PR: sc-77063-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.