



USP39 siRNA (m): sc-76850

BACKGROUND

The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. Through the use of a wide range of enzymes that can add or remove ubiquitin, the Ub pathway controls many intracellular processes such as signal transduction, transcriptional activation and cell cycle progression. USP39 (ubiquitin specific peptidase 39), also known as SAD1, CGI-21, HSPC332 or SNRNP65, is a 565 amino acid nuclear protein belonging to the peptidase C19 family. Containing one UBP-type zinc finger, USP39 play a role in mRNA splicing and is part of a tri-snRNP complex. USP39 is thought to be required for the stabilization of the spindle checkpoint and may help support successful cytokinesis. USP39 is encoded by a gene located on human chromosome 2.

REFERENCES

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7. van Leuken, R.J., Luna-Vargas, M.P., Sixma, T.K., Wolthuis, R.M. and Medema, R.H. 2008. USP39 is essential for mitotic spindle checkpoint integrity and controls mRNA-levels of aurora B. *Cell Cycle* 7: 2710-2719.

CHROMOSOMAL LOCATION

Genetic locus: Usp39 (mouse) mapping to 6 C1.

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

USP39 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see USP39 shRNA Plasmid (m): sc-76850-SH and USP39 shRNA (m) Lentiviral Particles: sc-76850-V as alternate gene silencing products.

For independent verification of USP39 (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-76850A, sc-76850B and sc-76850C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

USP39 siRNA (m) is recommended for the inhibition of USP39 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 μ M in 66 μ l. 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 USP39 gene expression knockdown using RT-PCR Primer: USP39 (m)-PR: sc-76850-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.