SANTA CRUZ BIOTECHNOLOGY, INC.

Rhno1 siRNA (m): sc-140416

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DNA damage or incomplete replication of DNA results in the inhibition of cell cycle progression at the G_1 to S or G_2 to M phase checkpoints by conserved regulatory mechanisms. Human RHINO (RAD9-HUS1-RAD1 interacting nuclear orphan 1), also known as RHNO1, C12orf32 or HKMT1188, is a 238 amino acid protein that plays a central role in DNA damage response and in cell cycle regulation. Strongly expressed in breast cancer cells and weakly expressed in testis, prostate, ovary, thymus and small intestine, RHINO is recruited to DNA damaged sites through interaction with 9-1-1 cell-cycle checkpoint response complex and ATR activator TopBP1. RHINO is required for cell cycle progression, specifically during G_1 to S phase transition. RHINO exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 12p13.33.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: 5930416I19Rik (mouse) mapping to 6 F3.

PROTOCOLS

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

PRODUCT

Rhno1 siRNA (m) is a target-specific 19-25 nt siRNA 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 Rhno1 shRNA Plasmid (m): sc-140416-SH and Rhno1 shRNA (m) Lentiviral Particles: sc-140416-V as alternate gene silencing products.

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

Rhno1 siRNA (m) is recommended for the inhibition of Rhno1 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 Rhno1 gene expression knockdown using RT-PCR Primer: Rhno1 (m)-PR: sc-140416-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.