SANTA CRUZ BIOTECHNOLOGY, INC.

OS-9 siRNA (m): sc-151325

BACKGROUND

OS-9 is a 667 amino acid endoplasmic reticulum protein that contains one PRKCSH domain and is expressed as three isoforms, designated OS-9-1, OS-9-2 and OS-9-3. Expressed ubiquitously in normal tissue and at high levels in osteosarcomas, OS-9 functions to bind HIF-1α (hypoxia-inducible factor 1α), a protein that plays an important role in angiogenesis (the development of blood vessels) and in the hypoxic response. Through its interaction with HIF-1α, OS-9 promotes the oxygen-dependent degradation of HIF-1α, thereby affecting the HIF-1α-mediated regulation of blood vessel growth and contributing to tumorigenesis. Additionally, OS-9 is thought to play a role in the ER-associated degradation (ERAD) of misfolded glycoproteins, assisting in the transport and polyubiquiination of damaged peptides.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Os9 (mouse) mapping to 10 D3.

PRODUCT

OS-9 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 OS-9 shRNA Plasmid (m): sc-151325-SH and OS-9 shRNA (m) Lentiviral Particles: sc-151325-V as alternate gene silencing products.

For independent verification of OS-9 (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-151325A, sc-151325B and sc-151325C.

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

OS-9 siRNA (m) is recommended for the inhibition of OS-9 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 OS-9 gene expression knockdown using RT-PCR Primer: OS-9 (m)-PR: sc-151325-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.