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SANTA CRUZ BIOTECHNOLOGY, INC.

UVSSA siRNA (m): sc-149456

BACKGROUND

UVSSA (UV-stimulated scaffold protein A), also known as KIAA1530, is a 709 amino acid chromosomal protein belonging to the UVSSA family and containing one coiled coil domain and one VHS-like region. Defects in the UVSSA gene result in UV-sensitive syndrome 3 (UVSS3), an autosomal recessive disorder characterized by cutaneous photosensitivity and slight dyspigmentation without skin carcinoma. UVSSA interacts with the machinery for transcription-coupled nucleotide-excision repair (TC-NER) which allows RNA polymerase II-blocking lesions to be removed from the transcribed strand of active genes. UVSSA also stabilizes the ERCC6 (excision repair cross-complementation group 6) complex, and facilitates ubiquitination of the elongating form of RNA polymerase II (RNA pol IIo) stalled at DNA damage sites.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Uvssa (mouse) mapping to 5 B1.

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

UVSSA 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 UVSSA shRNA Plasmid (m): sc-149456-SH and UVSSA shRNA (m) Lentiviral Particles: sc-149456-V as alternate gene silencing products.

For independent verification of UVSSA (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-149456A, sc-149456B and sc-149456C.

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

UVSSA siRNA (m) is recommended for the inhibition of UVSSA 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 UVSSA gene expression knockdown using RT-PCR Primer: UVSSA (m)-PR: sc-149456-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.