SANTA CRUZ BIOTECHNOLOGY, INC.

HRSP12 siRNA (h): sc-77741

BACKGROUND

HRSP12 (heat-responsive protein 12), also known as PSP, P14.5 or UK114, is a 137 amino acid protein that belongs to the UPF0076 (UK114) family and is expressed primarily in liver and kidney. Localized to the cytoplasm in highly differentiated cells and to the nucleus in less differentiated cells, HRSP12 functions as an endoribonuclease that inhibits translation by cleaving mRNA. Specifically, HRSP12 cleaves phosphodiester bonds in single-stranded mRNA, thereby breaking the mRNA and preventing protein synthesis. HRSP12 exists as a homotrimer and may be a tumor antigen involved in malignant neoplasms. This suggests a possible role in carcinogenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HRSP12 (human) mapping to 8q22.2.

PRODUCT

HRSP12 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 HRSP12 shRNA Plasmid (h): sc-77741-SH and HRSP12 shRNA (h) Lentiviral Particles: sc-77741-V as alternate gene silencing products.

For independent verification of HRSP12 (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-77741A, sc-77741B and sc-77741C.

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

HRSP12 siRNA (h) is recommended for the inhibition of HRSP12 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 HRSP12 gene expression knockdown using RT-PCR Primer: HRSP12 (h)-PR: sc-77741-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.