SANTA CRUZ BIOTECHNOLOGY, INC.

HtrA4 siRNA (m): sc-146113

BACKGROUND

The HtrA (high temperature requirement factor A) family all possess one or more C-terminal PDZ domains for binding target proteins and for regulating protein-protein interactions. There are four proteins that are in the human HtrA family of proteases, namely HtrA1, HtrA2, HtrA3 and HtrA4, which function as heat shock-induced serine proteases. HtrA4 is also known as HtrA serine peptidase 4 or probable serine protease HTRA4 and is a 476 amino acid protein. HtrA4 is an enzyme that is thought to be a secreted oligomeric chaperone protease which degrades misfolded secretory proteins and may exhibit some expression in human placenta. The gene encoding HtrA4 contains an IGFBP (Insulin growth factor binding domain) at the N-terminus, as well as a Kazal protease. In addition, the HtrA4 gene has been detected in human leprosy lesions, suggesting a possible role for HtrA4 in the pathogenesis of leprosy.

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CHROMOSOMAL LOCATION

Genetic locus: Htra4 (mouse) mapping to 8 A2.

PROTOCOLS

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

PRODUCT

HtrA4 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 HtrA4 shRNA Plasmid (m): sc-146113-SH and HtrA4 shRNA (m) Lentiviral Particles: sc-146113-V as alternate gene silencing products.

For independent verification of HtrA4 (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-146113A, sc-146113B and sc-146113C.

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

HtrA4 siRNA (m) is recommended for the inhibition of HtrA4 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 HtrA4 gene expression knockdown using RT-PCR Primer: HtrA4 (m)-PR: sc-146113-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.