SANTA CRUZ BIOTECHNOLOGY, INC.

PP11 siRNA (h): sc-95700

BACKGROUND

PP11 (placental protein 11), also known as ENDOU (endonuclease, polyU-specific), protein endoU or uridylate-specific endoribonuclease, is a 410 amino acid protein that contains two somatomedin-B (SMB) domains and belongs to the ENDOU family. Typical of secretory proteins, PP11 also contains one N-terminal hydrophobic region of 18 amino acids. Encoded by a gene that maps to human chromosome 12q13.11, PP11 exists as three alternatively spliced isoforms. Exhibiting placenta-specific localization, PP11 participates in protease activity and functions as an endoribonuclease. PP11 cleaves single-stranded RNAs at uridylates and releases products with a 2'-3'-cyclic phosphate termini. PP11 is a possible oncology marker for various forms of cancer, including ovarian, breast, testicular and gastric cancers, and may be useful as a marker in monitoring patients with malignant diseases.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ENDOU (human) mapping to 12q13.11.

PROTOCOLS

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

PRODUCT

PP11 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 PP11 shRNA Plasmid (h): sc-95700-SH and PP11 shRNA (h) Lentiviral Particles: sc-95700-V as alternate gene silencing products.

For independent verification of PP11 (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-95700A, sc-95700B and sc-95700C.

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

PP11 siRNA (h) is recommended for the inhibition of PP11 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 PP11 gene expression knockdown using RT-PCR Primer: PP11 (h)-PR: sc-95700-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.