SANTA CRUZ BIOTECHNOLOGY, INC.

POLR2C siRNA (h): sc-93093

BACKGROUND

POLR2C (polymerase (RNA) II (DNA directed) polypeptide C, 33kDa), also known as RPB3, RPB31, hRPB33 or hsRPB3, is a 275 amino acid phosphoprotein that contains a single cysteine-rich region and belongs to the archaeal rpoD/eukaryotic RPB3 RNA polymerase subunit family. Highly conserved, POLR2C is ubiquitously expressed, with highest expression in skeletal muscle, heart and pancreas. POLR2C encodes the third largest subunit of RNA polymerase II, which synthesizes mRNA in eukaryotes. POLR2C exists as a heterodimer with the polymerase subunit, POLR2J, thereby forming a core subassembly unit of the polymerase. POLR2C participates in DNA binding, DNA-directed RNA polymerase activity, protein dimerization activity and protein kinase activity. POLR2C also participates in multiple HIV-1 protein interactions. The gene that encodes POLR2C maps to human chromosome 16q21. A pseudogene also exists on chromosome 21.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: POLR2C (human) mapping to 16q21.

PRODUCT

POLR2C 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 POLR2C shRNA Plasmid (h): sc-93093-SH and POLR2C shRNA (h) Lentiviral Particles: sc-93093-V as alternate gene silencing products.

For independent verification of POLR2C (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-93093A, sc-93093B and sc-93093C.

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

POLR2C siRNA (h) is recommended for the inhibition of POLR2C 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 POLR2C gene expression knockdown using RT-PCR Primer: POLR2C (h)-PR: sc-93093-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.