

# POLR2L siRNA (h): sc-96685

## BACKGROUND

POLR2L (polymerase (RNA) II (DNA directed) polypeptide L, 7.6 kDa), also known as RBP10, RPB10, RPABC5, RPB7.6, hSRPB10b or RPB10beta, is a 67 amino acid protein that belongs to the archaeal rpoN/eukaryotic RPB10 RNA polymerase subunit family. Localizing to nucleus, POLR2L comprises two exons, interspaced with an intron of approximately 2.1 kb. Containing four conserved cysteines characteristic of an atypical zinc-binding domain, POLR2L encodes a subunit of RNA polymerase II, which synthesizes mRNA in eukaryotes. POLR2L participates in transcription regulation, DNA-directed RNA polymerase activity, DNA binding and zinc ion binding. POLR2L is a component of the RNA polymerase I (Pol I), RNA polymerase II (Pol II) and RNA polymerase III (Pol III) complexes, which consist of at least 13, 12 and 17 subunits, respectively. The gene that encodes POLR2L maps to human chromosome 11p15.5.

## REFERENCES

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7. Ho-Pun-Cheung, A., et al. 2009. Validation of an appropriate reference gene for normalization of reverse transcription-quantitative polymerase chain reaction data from rectal cancer biopsies. *Anal. Biochem.* 388: 348-350.
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## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CHROMOSOMAL LOCATION

Genetic locus: POLR2L (human) mapping to 11p15.5.

## PRODUCT

POLR2L siRNA (h) is a pool of 2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see POLR2L shRNA Plasmid (h): sc-96685-SH and POLR2L shRNA (h) Lentiviral Particles: sc-96685-V as alternate gene silencing products.

For independent verification of POLR2L (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-96685A and sc-96685B.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

POLR2L siRNA (h) is recommended for the inhibition of POLR2L 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  $\mu$ M in 66  $\mu$ l. 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 POLR2L gene expression knockdown using RT-PCR Primer: POLR2L (h)-PR: sc-96685-PR (20  $\mu$ l). 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.