



# Pury siRNA (h): sc-77656

## BACKGROUND

The Pur protein family consists of four members: Pur $\alpha$ , Pur $\beta$ , and two isoforms of Pury. Pury (purine-rich element-binding protein  $\gamma$ ), whose alternative names include PURG, Pur- $\gamma$ , PURG-A, PURG-B or MGC119274, is a 347 amino acid protein which localizes to the nucleus. Two isoforms of Pury exist as a result of alternative splicing: Isoform 1, or PURG-A, whose mRNA consists of a single intronless transcript, and Isoform 2, or PURG-B, whose mRNA is transcribed through the PURG-A polyadenylation site (and has an intron of roughly 30 kb which is spliced out). PURG-A is expressed in glioblastoma and testis, whereas PURG-B is expressed in fetal lung. The exact function of Pury is unknown, although it is likely involved in the initiation of transcription. The gene encoding Pury maps to human chromosome 8p11, which is upstream and on the opposite strand of the Werner syndrome gene.

## REFERENCES

1. Goto, M., Rubenstein, M., Weber, J., Woods, K. and Drayna, D. 1992. Genetic linkage of Werner's syndrome to five markers on chromosome 8. *Nature* 355: 735-738.
2. Liu, H. and Johnson, E.M. 2002. Distinct proteins encoded by alternative transcripts of the PURG gene, located contrapodal to WRN on chromosome 8, determined by differential termination/polyadenylation. *Nucleic Acids Res.* 30: 2417-2426.
3. Liu, H., Barr, S.M., Chu, C., Kohtz, D.S., Kinoshita, Y. and Johnson, E.M. 2005. Functional interaction of Pur $\alpha$  with the Cdk2 moiety of cyclin A/Cdk2. *Biochem. Biophys. Res. Commun.* 328: 851-857.
4. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 277700. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: PURG (human) mapping to 8p12.

## PRODUCT

Pury 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 Pury shRNA Plasmid (h): sc-77656-SH and Pury shRNA (h) Lentiviral Particles: sc-77656-V as alternate gene silencing products.

For independent verification of Pury (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-77656A and sc-77656B.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

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

## 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

Pury siRNA (h) is recommended for the inhibition of Pury 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 Pury gene expression knockdown using RT-PCR Primer: Pury (h)-PR: sc-77656-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.