



# Ribosomal Protein L29 siRNA (h): sc-78091

## BACKGROUND

Ribosomes, the organelles that catalyze protein synthesis, are composed of a small subunit (40S) and a large subunit (60S) that consist of over 80 distinct ribosomal proteins. Mammalian ribosomal proteins are encoded by multigene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L29 (RPL29), also known as HIP, 60S ribosomal protein L29, Cell surface heparin-binding protein, HUMRPL29 or MGC88589, is a 159 amino acid cytoplasmic ribosomal protein that is a component of the 60S subunit. Ribosomal Protein L29 belongs to the L29e family of ribosomal proteins and is found in glandular and luminal epithelium of normal human endometrium. Ribosomal Protein L29 also functions as a peripheral membrane protein found on the cell surface and binds heparin. Like most ribosomal proteins, Ribosomal Protein L29 exists as multiple processed pseudogenes that are scattered throughout the genome.

## REFERENCES

1. Law, P.T., et al. 1996. A novel cDNA encoding a human homologue of Ribosomal Protein L29. *Biochim. Biophys. Acta* 1305: 105-108.
2. Liu, S., et al. 1996. cDNA cloning and expression of HIP, a novel cell surface heparan sulfate/heparin-binding protein of human uterine epithelial cells and cell lines. *J. Biol. Chem.* 271: 11817-11823.
3. Rohde, L.H., et al. 1996. Cell surface expression of HIP, a novel heparin/heparan sulfate binding protein, of human uterine epithelial cells and cell lines. *J. Biol. Chem.* 271: 11824-11830.
4. Garcia-Barcelo, M., et al. 1997. Mapping of the human ribosomal large subunit protein gene RPL29 to human chromosome 3q29-qter. *Genomics* 46: 148-151.
5. Kirn-Safran, C.B., et al. 2000. Cloning, expression, and chromosome mapping of the murine Hip/Rpl29 gene. *Genomics* 68: 210-219.
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## CHROMOSOMAL LOCATION

Genetic locus: RPL29 (human) mapping to 3p21.2.

## PRODUCT

Ribosomal Protein L29 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ribosomal Protein L29 shRNA Plasmid (h): sc-78091-SH and Ribosomal Protein L29 shRNA (h) Lentiviral Particles: sc-78091-V as alternate gene silencing products.

For independent verification of Ribosomal Protein L29 (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-78091A, sc-78091B and sc-78091C.

## 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

Ribosomal Protein L29 siRNA (h) is recommended for the inhibition of Ribosomal Protein L29 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 Ribosomal Protein L29 gene expression knockdown using RT-PCR Primer: Ribosomal Protein L29 (h)-PR: sc-78091-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.

## PROTOCOLS

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