



## Proliferin-1 siRNA (m): sc-61412

### BACKGROUND

Various hormones are secreted from the anterior pituitary during development and growth, including Prolactin, Lutropin (LH), Proliferin (Mrp1 or Plf1), thyroid-stimulating hormone (TSH) and follicle-stimulating hormone (FSH). Proliferin, which also is designated mitogen-regulated protein 1, is an important secreted protein that plays a role in embryonic development. During fetal development at mid-gestation, Proliferin provides a growth signal to target cells in fetal and maternal tissues. It is a secreted protein that belongs to the somatotropin/Prolactin growth hormone family of proteins.

### REFERENCES

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2. Linzer, D.I. and Mordacq, J.C. 1987. Transcriptional regulation of Proliferin gene expression in response to serum in transfected mouse cells. *EMBO J.* 6: 2281-2288.
3. Hardy, C.M., Clydesdale, G. and Mobbs, K.J. 2004. Development of mouse-specific contraceptive vaccines: infertility in mice immunized with peptide and polypeptide antigens. *Reproduction* 128: 395-407.
4. Dostert, A. and Heinzel, T. 2004. Negative glucocorticoid receptor response elements and their role in glucocorticoid action. *Curr. Pharm. Des.* 10: 2807-2816.
5. Xie, J., Baumann, M.J. and McCabe, L.R. 2004. Osteoblasts respond to hydroxyapatite surfaces with immediate changes in gene expression. *J. Biomed. Mater. Res. A* 71: 108-117.
6. Parfett, C.L. 2005. Mitogen-regulated protein/Proliferin mRNA induction following single applications of tumor promoters to murine skin. *Mol. Carcinog.* 43: 117-129.
7. Xie, J., Baumann, M.J. and McCabe, L.R. 2005. Adsorption of serum fetuin to hydroxylapatite does not contribute to osteoblast phenotype modifications. *J. Biomed. Mater. Res. A* 73: 39-47.

### CHROMOSOMAL LOCATION

Genetic locus: Prl2c2 (mouse) mapping to 13 A1.

### PRODUCT

Proliferin-1 siRNA (m) 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 Proliferin-1 shRNA Plasmid (m): sc-61412-SH and Proliferin-1 shRNA (m) Lentiviral Particles: sc-61412-V as alternate gene silencing products.

For independent verification of Proliferin-1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-61412A, sc-61412B and sc-61412C.

### RESEARCH USE

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

### 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

Proliferin-1 siRNA (m) is recommended for the inhibition of Proliferin-1 expression in mouse 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 Proliferin-1 gene expression knockdown using RT-PCR Primer: Proliferin-1 (m)-PR: sc-61412-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

### PROTOCOLS

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