

# CGR19 siRNA (m): sc-62101

## BACKGROUND

CGR19 (cell growth regulatory gene 19 protein), also known as cell growth regulator with RING finger domain protein 1 and RING finger protein 197, is a 332 amino acid protein contains one RING-type zinc finger domain. CGR19 is ubiquitously expressed, with highest levels found in testis. It has been suggested that CGR19 plays a role in regulating the cell cycle because it inhibits growth in several cell lines. The gene encoding CGR19 maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

## REFERENCES

1. Madden, S.L., et al. 1996. Induction of cell growth regulatory genes by p53. *Cancer Res.* 56: 5384-5390.
2. Katoh, M. 2001. Molecular cloning and characterization of RNF26 on human chromosome 11q23 region, encoding a novel RING finger protein with leucine zipper. *Biochem. Biophys. Res. Commun.* 282: 1038-1044.
3. Gomes, I., et al. 2002. Novel transcription factors in human CD34 antigen-positive hematopoietic cells. *Blood* 100: 107-119.
4. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. *Nature* 421: 601-607.
5. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 606138. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: Cgrrf1 (mouse) mapping to 14 C1.

## PRODUCT

CGR19 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 CGR19 shRNA Plasmid (m): sc-62101-SH and CGR19 shRNA (m) Lentiviral Particles: sc-62101-V as alternate gene silencing products.

For independent verification of CGR19 (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-62101A, sc-62101B and sc-62101C.

## 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

CGR19 siRNA (m) is recommended for the inhibition of CGR19 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 CGR19 gene expression knockdown using RT-PCR Primer: CGR19 (m)-PR: sc-62101-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.