

# RNF39 siRNA (h): sc-95580

## BACKGROUND

The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. RNF39 (RING finger protein 39), also known as HZFW, HZF or LIRF, is a 420 amino acid protein that localizes to the cytoplasm and contains one RING-type zinc finger and one SPRY domain. Expressed in testis, RNF39 is thought to play a role in maintaining prolonged LTP (long term-potential, or the process by which synaptic strength continues to increase following chemical stimulation). Via its ability to influence the length of the LTP response, RNF39 functions to regulate early synaptic plasticity. Multiple isoforms of RNF39 exist due to alternative splicing events.

## REFERENCES

1. Lepourcelet, M., Andrieux, N., Giffon, T., Pichon, L., Hampe, A., Galibert, F. and Mosser, J. 1996. Systematic sequencing of the human HLA-A/HLA-F region: establishment of a cosmid contig and identification of a new gene cluster within 37 kb of sequence. *Genomics* 37: 316-326.
2. Orimo, A., Yamagishi, T., Tominaga, N., Yamauchi, Y., Hishinuma, T., Okada, K., Suzuki, M., Sato, M., Nogi, Y., Suzuki, H., Inoue, S., Yoshimura, K., Shimizu, Y. and Muramatsu, M. 2000. Molecular cloning of testis-abundant finger Protein/Ring finger protein 23 (RNF23), a novel RING-B box-coiled coil-B30.2 protein on the class I region of the human MHC. *Biochem. Biophys. Res. Commun.* 276: 45-51.
3. Coriton, O., Lepourcelet, M., Hampe, A., Galibert, F. and Mosser, J. 2000. Transcriptional analysis of the 69-kb sequence centromeric to HLA-J: a dense and complex structure of five genes. *Mamm. Genome* 11: 1127-1131.
4. Hidaka, M., Caruana, G., Stanford, W.L., Sam, M., Correll, P.H. and Bernstein, A. 2000. Gene trapping of two novel genes, Hzf and Hhl, expressed in hematopoietic cells. *Mech. Dev.* 90: 3-15.
5. Matsuo, R., Asada, A., Fujitani, K. and Inokuchi, K. 2001. LIRF, a gene induced during hippocampal long-term potentiation as an immediate-early gene, encodes a novel RING finger protein. *Biochem. Biophys. Res. Commun.* 289: 479-484.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607524. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: RNF39 (human) mapping to 6p22.1.

## 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.

## PRODUCT

RNF39 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 RNF39 shRNA Plasmid (h): sc-95580-SH and RNF39 shRNA (h) Lentiviral Particles: sc-95580-V as alternate gene silencing products.

For independent verification of RNF39 (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-95580A, sc-95580B and sc-95580C.

## 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

RNF39 siRNA (h) is recommended for the inhibition of RNF39 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 RNF39 gene expression knockdown using RT-PCR Primer: RNF39 (h)-PR: sc-95580-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.