SANTA CRUZ BIOTECHNOLOGY, INC.

LONRF1 siRNA (m): sc-149014

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. LONRF1 (LON peptidase N-terminal domain and RING finger 1), also known as RNF191 (RING-finger protein 191), is a 416 amino acid protein that contains one LON domain and one RING-type zinc finger domain. Via its RING-type zinc finger, LONRF1 may be involved in protein degradation events throughout the cell.

REFERENCES

1. Borden, K.L. and Freemont, P.S. 1996. The RING finger domain: a recent example of a sequence-structure family. Curr. Opin. Struct. Biol. 6: 395-401.
2. Lorick, K.L., Jensen, J.P., Fang, S., Ong, A.M., Hatakeyama, S. and Weissman, A.M. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. Proc. Natl. Acad. Sci. USA 96: 11364-11369.
3. Liu, C.H., Goldberg, A.L. and Qiu, X.B. 2007. New insights into the role of the ubiquitin-proteasome pathway in the regulation of apoptosis. Chang Gung Med. J. 30: 469-479.
4. Perucatti, A., Di Meo, G.P., Goldammer, T., Incarnato, D., Brunner, R. and Iannuzzi, L. 2007. Comparative FISH-mapping of twelve loci in river buffalo and sheep chromosomes: comparison with HSA8p and HSA4q. Cytogenet. Genome Res. 119: 242-244.
5. Barber, J.C., Maloney, V.K., Huang, S., Bunyan, D.J., Cresswell, L., Kinning, E., Benson, A., Cheetham, T., Wyllie, J., Lynch, S.A., Zwolinski, S., Prescott, L., Crow, Y., Morgan, R. and Hobson, E. 2008. 8p23.1 duplication syndrome; a novel genomic condition with unexpected complexity revealed by array CGH. Eur. J. Hum. Genet. 16: 18-27.

CHROMOSOMAL LOCATION

Genetic locus: Lonrf1 (mouse) mapping to 8 A4.

PRODUCT

LONRF1 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LONRF1 shRNA Plasmid (m): sc-149014-SH and LONRF1 shRNA (m) Lentiviral Particles: sc-149014-V as alternate gene silencing 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

LONRF1 siRNA (m) is recommended for the inhibition of LONRF1 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 µM in 66 µl. 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 LONRF1 gene expression knockdown using RT-PCR Primer: LONRF1 (m)-PR: sc-149014-PR (20 µl). 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 for detailed protocols and support products.