SANTA CRUZ BIOTECHNOLOGY, INC.

RNF130 siRNA (h): sc-91644

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. RNF130 (ring finger protein 130), also known as GP, G1RZFP (G_1-related zinc finger protein) or GOLIATH, is a 419 amino acid single-pass type I membrane protein that shares similarity with a Drosophila zinc-finger protein found in mesoderm known as g1. RNF130 contains one PA (protease associated) domain and a single RING-type zinc finger. Implicated in the regulation of growth factor withdrawal-induced apoptosis of myeloid precursor cells, RNF130 is encoded by a gene located on human chromosome 5q35.3 and mouse chromosome 11 B1.3.

REFERENCES

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3. 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.
4. Baker, S.J. and Reddy, E.P. 2000. Cloning of murine G1RP, a novel gene related to *Drosophila melanogaster* γ1. Gene 248: 33-40.
5. Guais, A., Solhonne, B., Melaine, N., Guellaen, G. and Bulle, F. 2004. Goliath, a RING-H2 mitochondrial protein, regulated by luteinizing hormone/human chorionic Gonadotropin in rat leydig cells. Biol. Reprod. 70: 204-213.
6. Guais, A., Siegrist, S., Solhonne, B., Jouault, H., Guellaën, G. and Bulle, F. 2006. h-Goliath, paralog of GRAIL, is a new E3 ligase protein, expressed in human leukocytes. Gene 374: 112-120.

CHROMOSOMAL LOCATION

Genetic locus: RNF130 (human) mapping to 5q35.3.

PRODUCT

RNF130 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RNF130 shRNA Plasmid (h): sc-91644-SH and RNF130 shRNA (h) Lentiviral Particles: sc-91644-V as alternate gene silencing products.

For independent verification of RNF130 (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-91644A, sc-91644B and sc-91644C.

PROTOCOLS

See our web site at 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 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

RNF130 siRNA (h) is recommended for the inhibition of RNF130 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 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 RNF130 gene expression knockdown using RT-PCR Primer: RNF130 (h)-PR: sc-91644-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.