

# RNF126 siRNA (h): sc-97281

## 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 protein-protein interactions and protein-DNA interactions. RNF126 (RING finger protein 126) contains one RING-type zinc finger domain and is known to interact with TRAF6 (a ubiquitin ligase) and BAT3 (an apoptotic regulator). RNF126 shares 46% overall amino acid identity with ZNF364 (an E3 ligase that is closely linked to human breast cancer) and 75% amino acid identity within the RING domain. This suggests that RNF126 may have a similar function to that of ZNF364. Due to alternative splicing events, two isoforms exist for RNF126.

## REFERENCES

1. Saurin, A.J., et al. 1996. Does this have a familiar RING? Trends Biochem. Sci. 21: 208-214.
2. Bouwmeester, T., et al. 2004. A physical and functional map of the human TNF- $\alpha$ /NF $\kappa$ B signal transduction pathway. Nat. Cell Biol. 6: 97-105.
3. Lehner, B., et al. 2004. Analysis of a high-throughput yeast two-hybrid system and its use to predict the function of intracellular proteins encoded within the human MHC class III region. Genomics 83: 153-167.
4. Ishibashi, T., et al. 2005. Oligonucleotide-based microarray analysis of retinoic acid target genes in the protochordate, *Ciona intestinalis*. Dev. Dyn. 233: 1571-1578.
5. Burger, A., et al. 2006. Novel RING E3 ubiquitin ligases in breast cancer. Neoplasia 8: 689-695.

## CHROMOSOMAL LOCATION

Genetic locus: RNF126 (human) mapping to 19p13.3.

## PRODUCT

RNF126 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 RNF126 shRNA Plasmid (h): sc-97281-SH and RNF126 shRNA (h) Lentiviral Particles: sc-97281-V as alternate gene silencing products.

For independent verification of RNF126 (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-97281A, sc-97281B and sc-97281C.

## 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

RNF126 siRNA (h) is recommended for the inhibition of RNF126 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.

## GENE EXPRESSION MONITORING

RNF126 (C-1): sc-376005 is recommended as a control antibody for monitoring of RNF126 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor RNF126 gene expression knockdown using RT-PCR Primer: RNF126 (h)-PR: sc-97281-PR (20  $\mu$ l). 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](http://www.scbt.com) for detailed protocols and support products.