



RNF17 siRNA (h): sc-76417

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. RNF17 (ring finger protein 17) or tudor domain-containing protein 4, TDRD4, SPATA23, Mmip-2 or FLJ11045, is a testis-specific protein and a novel key regulator of spermiogenesis containing 1,623 amino acids. By distributing Mad proteins to the cytoplasm, RNF17 regulates the transcriptional activity of c-Myc. Although showing localization in the nucleus, RNF17 is predominantly observed in cytoplasm and is a component of a novel nuage found in male germ cells. The gene encoding RNF17 maps to human chromosome 13q12.12 and encodes one RING-type zinc finger and four tudor domains. As a result of alternative splice events, five RNF17 isoforms exist.

REFERENCES

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2. Yin, X.Y., et al. 1999. Mmip-2, a novel RING finger protein that interacts with mad members of the Myc oncoprotein network. *Oncogene* 18: 6621-6634.
3. Lorick, K.L., et al. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. *Proc. Natl. Acad. Sci. USA* 96: 11364-11369.
4. Wang, P.J., et al. 2001. An abundance of X-linked genes expressed in spermatogonia. *Nat. Genet.* 27: 422-426.
5. Yin, X.Y., et al. 2001. Mmip-2/RNF17 enhances c-Myc function and regulates some target genes in common with glucocorticoid hormones. *Oncogene* 20: 2908-2917.
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CHROMOSOMAL LOCATION

Genetic locus: RNF17 (human) mapping to 13q12.12.

PRODUCT

RNF17 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RNF17 shRNA Plasmid (h): sc-76417-SH and RNF17 shRNA (h) Lentiviral Particles: sc-76417-V as alternate gene silencing products.

For independent verification of RNF17 (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-76417A, sc-76417B and sc-76417C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

RNF17 siRNA (h) is recommended for the inhibition of RNF17 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 μ M in 66 μ 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 RNF17 gene expression knockdown using RT-PCR Primer: RNF17 (h)-PR: sc-76417-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.