

# TRIM36 siRNA (h): sc-91989

## BACKGROUND

TRIM36 (tripartite motif-containing 36), also known as RNF98 (RING finger protein 98), HAPRIN (haploid germ cell-specific RBCC protein) or RBCC728, is a 728 amino acid protein that belongs to the TRIM/RBCC (Ring finger, B box, coiled-coil) family. Predominantly expressed in prostate, testis and brain with weak expression in heart, kidney and lung, TRIM36 contains two B box-type zinc fingers, a SPRY domain, a coiled-coil domain, a fibronectin type-III domain and a RING-type zinc finger; a motif that has zinc-chelating activity and is involved in mediating protein-protein and protein-DNA interactions. Localizing to the cytoplasm and the acrosomal region of germ cells and mature sperm, TRIM36 is believed to play a role in the acrosome reaction and fertilization. In addition, TRIM36 is overexpressed in prostate cancer, suggesting a possible role for TRIM36 in prostate tumorigenesis.

## REFERENCES

1. Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. *EMBO J.* 20: 2140-2151.
2. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609317. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Kitamura, K., et al. 2003. Haprin, a novel haploid germ cell-specific RING finger protein involved in the acrosome reaction. *J. Biol. Chem.* 278: 44417-44423.
4. Balint, I., et al. 2004. Cloning and characterisation of the RBCC728/TRIM36 zinc-binding protein from the tumor suppressor gene region at chromosome 5q22.3. *Gene* 332: 45-50.

## CHROMOSOMAL LOCATION

Genetic locus: TRIM36 (human) mapping to 5q22.3.

## PRODUCT

TRIM36 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 TRIM36 shRNA Plasmid (h): sc-91989-SH and TRIM36 shRNA (h) Lentiviral Particles: sc-91989-V as alternate gene silencing products.

For independent verification of TRIM36 (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-91989A, sc-91989B and sc-91989C.

## 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

TRIM36 siRNA (h) is recommended for the inhibition of TRIM36 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

TRIM36 (SS-03): sc-100881 is recommended as a control antibody for monitoring of TRIM36 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 TRIM36 gene expression knockdown using RT-PCR Primer: TRIM36 (h)-PR: sc-91989-PR (20  $\mu$ l, 433 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS

1. Yu, S., et al. 2022. TRIM36 enhances lung adenocarcinoma radiosensitivity and inhibits tumorigenesis through promoting Rad51 ubiquitination and antagonizing hsa-miR-376a-5p. *Biochem. Biophys. Res. Commun.* 628: 1-10.

## 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.