

# TRIM52 siRNA (h): sc-91594

## BACKGROUND

The tripartite motif (TRIM) family of proteins are characterized by a conserved TRIM domain that includes a coiled-coil region, a B-box type zinc finger, one RING finger and three zinc-binding domains. TRIM52 (tripartite motif-containing 52), also known as RNF102 (RING finger protein 102), is a 297 amino acid protein that belongs to the TRIM family and contains one B box-type zinc fingers and one RING-type zinc finger. The gene encoding TRIM52 maps to chromosome 5, which is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

## REFERENCES

1. Rauch, A. and Dörr, H.G. 2007. Chromosome 5q subtelomeric deletion syndrome. *Am. J. Med. Genet. C Semin. Med. Genet.* 145C: 372-376.
2. Villa, N., Redaelli, S., Borroni, C., Colombo, C., Roncaglia, N., Sala, E., Crosti, F., Cappellini, A. and Dalprà, L. 2007. Fetal trisomy 5 mosaicism: case report and literature review. *Am. J. Med. Genet. A* 143A: 2343-2346.
3. Shadduck, R.K., Latsko, J.M., Rossetti, J.M., Haq, B. and Abdulhaq, H. 2007. Recent advances in myelodysplastic syndromes. *Exp. Hematol.* 35: 137-143.
4. Falini, B., Nicoletti, I., Bolli, N., Martelli, M.P., Liso, A., Gorello, P., Mandelli, F., Mecucci, C. and Martelli, M.F. 2007. Translocations and mutations involving the nucleophosmin (NPM1) gene in lymphomas and leukemias. *Haematologica* 92: 519-532.
5. Kristoffersen, K.E. 2008. Speech and language development in cri du chat syndrome: a critical review. *Clin. Linguist. Phon.* 22: 443-457.
6. Valent, P. 2008. Revealing the pathogenesis of the 5q- syndrome. *Eur. J. Clin. Invest.* 38: 539-540.

## CHROMOSOMAL LOCATION

Genetic locus: TRIM52 (human) mapping to 5q35.3.

## PRODUCT

TRIM52 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 TRIM52 shRNA Plasmid (h): sc-91594-SH and TRIM52 shRNA (h) Lentiviral Particles: sc-91594-V as alternate gene silencing products.

For independent verification of TRIM52 (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-91594A, sc-91594B and sc-91594C.

## 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  $\mu$ 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

TRIM52 siRNA (h) is recommended for the inhibition of TRIM52 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

TRIM52 (A-4): sc-398954 is recommended as a control antibody for monitoring of TRIM52 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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TRIM52 gene expression knockdown using RT-PCR Primer: TRIM52 (h)-PR: sc-91594-PR (20  $\mu$ 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](http://www.scbt.com) for detailed protocols and support products.