SANTA CRUZ BIOTECHNOLOGY, INC.

# TRIM14 siRNA (m): sc-76737

## 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. TRIM14 (tripartite motif-containing 14) is a 442 amino acid protein belonging to the TRIM/RBCC family. With highest expression in liver, TRIM14 contains one B box-type zinc finger and one B30.2/SPRY domain. Through its B-box zinc finger domain, TRIM14 inhibits the transcriptional activity of PU.1 in a dose-dependent manner. TRIM14 exists as two alternatively spliced isoforms that are designated isoform $\alpha$ and isoform $\beta$. TRIM14 is encoded by a gene located on human chromosome 9, which consists of about 145 million bases, 4% of the human genome and encodes nearly 900 genes. Chromosome 9 may play a role in gender determination and deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype.

## REFERENCES


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2. Reymond, A., Meroni, G., Fantozzi, A., Merla, G., Cairo, S., Luzi, L., Riganelli, D., Zanaria, E., Messali, S., Cainarca, S., Guffanti, A., Minucci, S., Pelicci, P.G. and Ballabio, A. 2001. The tripartite motif family identifies cell compartments. EMBO J. 20: 2140-2151.
3. Shyu, H.W., Hsu, S.H., Hsieh-Li, H.M. and Li, H. 2001. A novel member of the RBCC family, Trif, expressed specifically in the spermatids of mouse testis. Mech. Dev. 108: 213-216.
4. Shyu, H.W., Hsu, S.H., Hsieh-Li, H.M. and Li, H. 2003. Forced expression of RNF36 induces cell apoptosis. Exp. Cell Res. 287: 301-313.
5. Meroni, G. and Diez-Roux, G. 2005. TRIM/RBCC, a novel class of "single protein RING finger" E3 ubiquitin ligases. Bioessays 27: 1147-1157.
6. Sardiello, M., Cairo, S., Fontanella, B., Ballabio, A. and Meroni, G. 2008. Genomic analysis of the TRIM family reveals two groups of genes with distinct evolutionary properties. BMC Evol. Biol. 8: 225.


## CHROMOSOMAL LOCATION

Genetic locus: Trim14 (mouse) mapping to 4 B1.

## PRODUCT

TRIM14 siRNA (m) 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 TRIM14 shRNA Plasmid (m): sc-76737-SH and TRIM14 shRNA (m) Lentiviral Particles: sc-76737-V as alternate gene silencing products.

For independent verification of TRIM14 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-76737A, sc-76737B and sc-76737C.

## 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 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

TRIM14 siRNA (m) is recommended for the inhibition of TRIM14 expression in mouse 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 TRIM14 gene expression knockdown using RT-PCR Primer: TRIM14 (m)-PR: sc-76737-PR (20 µl). 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.