



TRIM7 siRNA (m): sc-154669

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. TRIM7 (tripartite motif-containing 7), also known as RNF90 or GNIP, is a 511 amino acid protein that belongs to the TRIM family and contains one RING-type zinc finger, one B box-type zinc finger and one SPRY domain. Expressed in placenta and skeletal muscle and present at lower levels in brain, heart and pancreas, TRIM7 localizes to both the cytoplasm and the nucleus where it exists as dimers and is thought to participate in the initiation of glycogen synthesis. Multiple isoforms of TRIM7 exist due to alternative splicing events.

REFERENCES

1. Alonso, M.D., Lomako, J., Lomako, W.M. and Whelan, W.J. 1995. A new look at the biogenesis of glycogen. *FASEB J.* 9: 1126-1137.
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. Skurat, A.V., Dietrich, A.D., Zhai, L. and Roach, P.J. 2002. GNIP, a novel protein that binds and activates glycogenin, the self-glucosylating initiator of glycogen biosynthesis. *J. Biol. Chem.* 277: 19331-19338.
4. Zhai, L., Dietrich, A., Skurat, A.V. and Roach, P.J. 2004. Structure-function analysis of GNIP, the glycogenin-interacting protein. *Arch. Biochem. Biophys.* 421: 236-242.
5. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609315. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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: Trim7 (mouse) mapping to 11 B1.2.

PRODUCT

TRIM7 siRNA (m) is a pool of 2 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 TRIM7 shRNA Plasmid (m): sc-154669-SH and TRIM7 shRNA (m) Lentiviral Particles: sc-154669-V as alternate gene silencing products.

For independent verification of TRIM7 (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-154669A and sc-154669B.

PROTOCOLS

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

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

TRIM7 siRNA (m) is recommended for the inhibition of TRIM7 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 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 TRIM7 gene expression knockdown using RT-PCR Primer: TRIM7 (m)-PR: sc-154669-PR (20 μ 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.