

TRIM56 siRNA (m): sc-154658

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. TRIM proteins are involved in a wide variety of cellular processes such as cell development, proliferation, differentiation, oncogenesis and apoptosis. Many TRIM proteins are induced by type I and type II interferons, making them crucial for development of pathogen-resistance. TRIM56 (tripartite motif-containing 56), also known as RNF109 (RING finger protein 109), is a 755 amino acid protein that contains a variety of domains that are characteristic to TRIM proteins, including a RING-type zinc finger and a B box-type zinc finger. There are three isoforms of TRIM56 that are produced as a result of alternative splicing events. TRIM56 is encoded by a gene located on human chromosome 7q22.1.

REFERENCES

1. Jensen, K., Shiels, C. and Freemont, P.S. 2001. PML protein isoforms and the RBCC/TRIM motif. *Oncogene* 20: 7223-7233.
2. Nisole, S., Stoye, J.P. and Saib, A. 2005. TRIM family proteins: retroviral restriction and antiviral defence. *Nat. Rev. Microbiol.* 3: 799-808.
3. Ozato, K., Shin, D.M., Chang, T.H. and Morse, H.C. 2008. TRIM family proteins and their emerging roles in innate immunity. *Nat. Rev. Immunol.* 8: 849-860.
4. Du Pasquier, L. 2009. Fish "n" TRIMs. *J. Biol.* 8: 50.
5. McNab, F.W., Rajsbaum, R., Stoye, J.P. and O'Garra, A. 2010. Tripartite-motif proteins and innate immune regulation. *Curr Opin Immunol.* 23: 46-56.
6. Chu, Y. and Yang, X. 2010. SUMO E3 ligase activity of TRIM proteins. *Oncogene* 30: 1108-1116.
7. Munir, M. 2010. TRIM proteins: another class of viral victims. *Sci. Signal.* 3: jc2.

CHROMOSOMAL LOCATION

Genetic locus: Trim56 (mouse) mapping to 5 G2.

PRODUCT

TRIM56 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TRIM56 shRNA Plasmid (m): sc-154658-SH and TRIM56 shRNA (m) Lentiviral Particles: sc-154658-V as alternate gene silencing products.

For independent verification of TRIM56 (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-154658A, sc-154658B and sc-154658C.

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

TRIM56 siRNA (m) is recommended for the inhibition of TRIM56 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 TRIM56 gene expression knockdown using RT-PCR Primer: TRIM56 (m)-PR: sc-154658-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.