

TRIM23 siRNA (h): sc-106640

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. TRIM23 (tripartite motif-containing protein 23), also known as ARD1, ARFD1 or RNF46, is a 574 amino acid intracytoplasmic membrane protein that associates with the Golgi apparatus and with lysosomal structures. Belonging to both the TRIM protein family and the ADP ribosylation factor family of guanine nucleotide-binding proteins, TRIM23 plays a role in the formation of intracellular transport vesicles and aids in the movement of vesicles from one compartment to another. Additionally, TRIM23 interacts with cytohesin-1, an association that is thought to activate TRIM23 function. Three isoforms of TRIM23, designated α , β and γ , are expressed due to alternative splicing events.

REFERENCES

1. Mishima, K., et al. 1993. ARD 1, a 64 kDa guanine nucleotide-binding protein with a carboxyl-terminal ADP-ribosylation factor domain. *J. Biol. Chem.* 268: 8801-8807.
2. Vitale, N., et al. 1998. Localization of ADP-ribosylation factor domain protein 1 (ARD1) in lysosomes and Golgi apparatus. *Proc. Natl. Acad. Sci. USA* 95: 8613-8618.
3. Vitale, N., et al. 2000. Specific functional interaction of human cytohesin-1 and ADP-ribosylation factor domain protein (ARD1). *J. Biol. Chem.* 275: 21331-21339.
4. Simard, M.J., et al. 2000. Control of hnRNP A1 alternative splicing: an intron element represses use of the common 3' splice site. *Mol. Cell. Biol.* 20: 7353-7362.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601747. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: TRIM23 (human) mapping to 5q12.3.

PRODUCT

TRIM23 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TRIM23 shRNA Plasmid (h): sc-106640-SH and TRIM23 shRNA (h) Lentiviral Particles: sc-106640-V as alternate gene silencing products.

For independent verification of TRIM23 (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-106640A, sc-106640B and sc-106640C.

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

TRIM23 siRNA (h) is recommended for the inhibition of TRIM23 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 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.

GENE EXPRESSION MONITORING

TRIM23 (C-1): sc-393923 is recommended as a control antibody for monitoring of TRIM23 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 κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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 TRIM23 gene expression knockdown using RT-PCR Primer: TRIM23 (h)-PR: sc-106640-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.