

TRIM66 siRNA (m): sc-154666

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. TRIM66 (tripartite motif-containing protein 66), also known as TIF1D, C11orf29 or KIAA0298, is a 1,216 amino acid protein belonging to the TRIM family, and contains two B box-type zinc fingers, one bromo domain, and one PHD-type zinc finger. Localizing to nucleus, TRIM66 is strongly expressed in testis, thymus, and kidney, with moderate expression in prostate and ovary. TRIM66 may form individual foci in the centromeric chromocenter and the surrounding nucleoplasm, and may also function as a transcription repressor, mediated by recruitment of deacetylase activity, and as a negative regulator of postmeiotic genes. Existing as two alternatively spliced isoforms, the gene encoding TRIM66 maps to human chromosome 11p15.4.

REFERENCES

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2. Khetchoumian, K., et al. 2004. TIF1δ, a novel HP1-interacting member of the transcriptional intermediary factor 1 (TIF1) family expressed by elongating spermatids. J. Biol. Chem. 279: 48329-48341.
3. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
4. van der Aa, L.M., et al. 2009. A large new subset of TRIM genes highly diversified by duplication and positive selection in teleost fish. BMC Biol. 7: 7.
5. Munir, M. 2010. TRIM proteins: another class of viral victims. Sci. Signal. 3: jc2.
6. Napolitano, L.M., et al. 2011. Functional interactions between ubiquitin E2 enzymes and TRIM proteins. Biochem. J. 434: 309-319.
7. McNab, F.W., et al. 2011. Tripartite-motif proteins and innate immune regulation. Curr. Opin. Immunol. 23: 46-56.

CHROMOSOMAL LOCATION

Genetic locus: Trim66 (mouse) mapping to 7 E3.

PRODUCT

TRIM66 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 TRIM66 shRNA Plasmid (m): sc-154666-SH and TRIM66 shRNA (m) Lentiviral Particles: sc-154666-V as alternate gene silencing products.

For independent verification of TRIM66 (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-154666A, sc-154666B and sc-154666C.

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

TRIM66 siRNA (m) is recommended for the inhibition of TRIM66 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.

GENE EXPRESSION MONITORING

TRIM66 (A-9): sc-515177 is recommended as a control antibody for monitoring of TRIM66 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 TRIM66 gene expression knockdown using RT-PCR Primer: TRIM66 (m)-PR: sc-154666-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.

PROTOCOLS

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