

▶ TRIM68 siRNA (h): sc-96525

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. TRIM68 (Tripartite motif-containing protein 68), also known as RNF137 (RING-finger protein 137) or SS56, is a 485 amino acid protein that localizes to the perinuclear region of the cytoplasm. Expressed in a variety of tissues with higher expression in prostate, spleen and fetal liver, TRIM68 associates with androgen receptor (AR) and, via this interaction, enhances the transcriptional activity of AR. TRIM68 is found in various cancers, including prostate cancer cells, and is thought to be a therapeutic target for the detection and treatment of prostate cancer. Additionally, TRIM68 is a target of the autoimmune response exhibited in systemic lupus erythematosus (SLE), primary Sjögren syndrome and HIV-1 infection.

REFERENCES

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2. Hartley, J.L., et al. 2000. DNA cloning using *in vitro* site-specific recombination. *Genome Res.* 10: 1788-1795.
3. Chang, G.T., et al. 2001. A novel gene on human chromosome 2p24 is differentially expressed between androgen-dependent and androgen-independent prostate cancer cells. *Eur. J. Cancer* 37: 2129-2134.
4. Billaut-Mulot, O., et al. 2001. SS-56, a novel cellular target of autoantibody responses in Sjögren syndrome and systemic lupus erythematosus. *J. Clin. Invest.* 108: 861-869.
5. Horii, K., et al. 2007. Androgen-dependent gene expression of prostate-specific antigen is enhanced synergistically by hypoxia in human prostate cancer cells. *Mol. Cancer Res.* 5: 383-391.
6. Miyajima, N., et al. 2008. TRIM68 regulates ligand-dependent transcription of androgen receptor in prostate cancer cells. *Cancer Res.* 68: 3486-3494.

CHROMOSOMAL LOCATION

Genetic locus: TRIM68 (human) mapping to 11p15.4.

PRODUCT

TRIM68 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 TRIM68 shRNA Plasmid (h): sc-96525-SH and TRIM68 shRNA (h) Lentiviral Particles: sc-96525-V as alternate gene silencing products.

For independent verification of TRIM68 (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-96525A, sc-96525B and sc-96525C.

PROTOCOLS

See our web site at www.scbt.com or our catalog 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

TRIM68 siRNA (h) is recommended for the inhibition of TRIM68 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

TRIM68 (P-20): sc-130049 is recommended as a control antibody for monitoring of TRIM68 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 (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TRIM68 gene expression knockdown using RT-PCR Primer: TRIM68 (h)-PR: sc-96525-PR (20 μ l, 577 bp). 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.