

NRIP siRNA (m): sc-150065

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. NRIP (nuclear receptor interaction protein), also known as IQWD1 (IQ motif and WD repeat-containing protein 1), MSTP055, ARCAP or PC326, is an 860 amino acid protein that localizes to the nucleus and contains one IQ domain and seven WD-repeats. Expressed in testis, skeletal muscle, prostate and heart, NRIP functions as a ligand-dependent coactivator of nuclear receptors and specifically enhances the transcriptional activity of AR (androgen receptor) and GR (glucocorticoid receptor). NRIP exists as three isoforms that are produced by alternative splicing events.

REFERENCES

1. Grad, J.M., et al. 1999. Multiple androgen response elements and a Myc consensus site in the androgen receptor (AR) coding region are involved in androgen-mediated up-regulation of AR messenger RNA. *Mol. Endocrinol.* 13: 1896-1911.
2. Türeci, O., et al. 2002. A novel tumour associated leucine zipper protein targeting to sites of gene transcription and splicing. *Oncogene* 21: 3879-3888.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610494. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Tsai, T.C., et al. 2005. NRIP, a novel nuclear receptor interaction protein, enhances the transcriptional activity of nuclear receptors. *J. Biol. Chem.* 280: 20000-20009.
5. Han, C.P., et al. 2008. Nuclear Receptor Interaction Protein (NRIP) expression assay using human tissue microarray and immunohistochemistry technology confirming nuclear localization. *J. Exp. Clin. Cancer Res.* 27: 25.
6. Chen, P.H., et al. 2008. Nuclear receptor interaction protein, a coactivator of androgen receptors (AR), is regulated by AR and Sp1 to feed forward and activate its own gene expression through AR protein stability. *Nucleic Acids Res.* 36: 51-66.

CHROMOSOMAL LOCATION

Genetic locus: Dcaf6 (mouse) mapping to 1 H2.3.

PRODUCT

NRIP siRNA (m) is a target-specific 19-25 nt siRNA 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 NRIP shRNA Plasmid (m): sc-150065-SH and NRIP shRNA (m) Lentiviral Particles: sc-150065-V as alternate gene silencing 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

NRIP siRNA (m) is recommended for the inhibition of NRIP 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

NRIP (B-11): sc-515639 is recommended as a control antibody for monitoring of NRIP 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 NRIP gene expression knockdown using RT-PCR Primer: NRIP (m)-PR: sc-150065-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.