

NCoA-7 siRNA (m): sc-149859

BACKGROUND

Nuclear receptors for steroids, thyroid hormones and retinoic acids are ligand-dependent transcription factors that activate transcription through specific DNA binding sites in their target genes. NCoA-7 (nuclear receptor coactivator 7), also known as ESNA1 or ERAP140, is a 942 amino acid nuclear protein that enhances nuclear receptor transcriptional activities and coactivates several nuclear receptors including PPAR γ , ER α , TR β 1 and RAR α . Highly expressed in brain and weakly expressed in pancreas, bladder, ovary, spinal cord, prostate, mammary gland, ovary, uterus and stomach, NCoA-7 is a member of the OXR1 family and contains one LysM repeat and a TLD domain. Six NCoA-7 isoforms are known to exist due to alternative splicing events, and the gene encoding NCoA-7 maps to human chromosome 6q22.31 and mouse chromosome 10 A4.

REFERENCES

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- Shao, W., et al. 2002. ERAP140, a conserved tissue-specific nuclear receptor coactivator. *Mol. Cell. Biol.* 22: 3358-3372.
- Durand, M., et al. 2007. The OXR domain defines a conserved family of eukaryotic oxidation resistance proteins. *BMC Cell Biol.* 8: 13.
- Arai, H., et al. 2008. ERAP140/Nbla10993 is a novel favorable prognostic indicator for neuroblastoma induced in response to retinoic acid. *Oncol. Rep.* 19: 1381-1388.
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CHROMOSOMAL LOCATION

Genetic locus: Ncoa7 (mouse) mapping to 10 A4.

PRODUCT

NCoA-7 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 NCoA-7 shRNA Plasmid (m): sc-149859-SH and NCoA-7 shRNA (m) Lentiviral Particles: sc-149859-V as alternate gene silencing products.

For independent verification of NCoA-7 (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-149859A, sc-149859B and sc-149859C.

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

NCoA-7 siRNA (m) is recommended for the inhibition of NCoA-7 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

NCoA-7 (C-2): sc-393427 is recommended as a control antibody for monitoring of NCoA-7 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 NCoA-7 gene expression knockdown using RT-PCR Primer: NCoA-7 (m)-PR: sc-149859-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.