SANTA CRUZ BIOTECHNOLOGY, INC.

NCoA-5 siRNA (h): sc-75885

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-5 (nuclear receptor coactivator 5), also known as CIA (coactivator independent of AF-2), is a widely expressed nuclear receptor coregulator consisting of 579 amino acids. NCoA-5 acts as a coactivator for ERα (estrogen receptor α), ERβ (estrogen receptor β) and Rev-erbβ (orphan nuclear hormone receptor BD73), and corepresses c-Myc in response to 17-β-estradiol. NCoA-5 contains one LxxLL (Leu-Xaa-Xaa-Leu-Leu) motif that allows it to successfully associate with nuclear receptors, and the NCoA-5 gene maps to human chromosome 20q13.12.

REFERENCES

1. Sauvé, F., et al. 2001. CIA, a novel estrogen receptor coactivator with a bifunctional nuclear receptor interacting determinant. Mol. Cell. Biol. 21: 343-353.
2. McDonnell, D.P. and Norris, J.D. 2002. Connections and regulation of the human estrogen receptor. Science 296: 1642-1644.
3. Jiang, C., et al. 2004. TIP30 interacts with an estrogen receptor α-interacting coactivator CIA and regulates c-Myc transcription. J. Biol. Chem. 279: 27781-27789.
4. Klinge, C.M., et al. 2004. Estrogen response element-dependent regulation of transcriptional activation of estrogen receptors α and β by coactivators and corepressors. J. Mol. Endocrinol. 33: 387-410.
5. Brandenberger, R., et al. 2004. Transcriptome characterization elucidates signaling networks that control human ES cell growth and differentiation. Nat. Biotechnol. 22: 707-716.
6. Ulke-Lemée, A., et al. 2007. The nuclear PP1 interacting protein ZAP3 (ZAP) is a putative nucleoside kinase that complexes with SAM68, CIA, NF110/45, and HNRNP-G. Biochim. Biophys. Acta 1774: 1339-1350.

CHROMOSOMAL LOCATION

Genetic locus: NCOA5 (human) mapping to 20q13.12.

PRODUCT

NCoA-5 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NCoA-5 shRNA Plasmid (h): sc-75885-SH and NCoA-5 shRNA (h) Lentiviral Particles: sc-75885-V as alternate gene silencing products.

For independent verification of NCoA-5 (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-75885A, sc-75885B and sc-75885C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NCoA-5 siRNA (h) is recommended for the inhibition of NCoA-5 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 µM in 66 µl. 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor NCoA-5 gene expression knockdown using RT-PCR Primer: NCoA-5 (h)-PR: sc-75885-PR (20 µl). 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.