



CENP-R siRNA (m): sc-72863

BACKGROUND

CENP-R (centromere protein R), also known as CENPR, ITGB3BP (Integrin β 3 binding protein), β 3-endonexin, NRIF3 (nuclear receptor-interacting factor 3) or TAP20, is a widely expressed protein that contains a DD1 or RepD1 domain and an LXXLL motif. Induced by estrogen, CENP-R is believed to function as a nuclear receptor coactivator. It also associates with the CENP-A-CAD complex which is involved in mitotic progression, the assembly of kinetochore proteins and chromosome segregation. A number of isoforms exist for CENP-R due to alternative splicing events. Isoform 1 localizes to the nucleus at the centromere; isoform 2, also known as EnL, En-L or long isoform, localizes to the nucleus; isoform 3, also known as EnS, En-S or short isoform, localizes predominantly to the nucleus but can also be found in the cytoplasm; and isoform 4 predominantly localizes to the cytoplasm. Isoform 3 of CENP-R binds to the cytoplasmic tail of Integrin β 3 and can activate Integrin α IIb/ β 3.

REFERENCES

- Li, D., et al. 2001. Domain structure of the NRIF3 family of coregulators suggests potential dual roles in transcriptional regulation. *Mol. Cell. Biol.* 21: 8371-8384.
- Besta, F., et al. 2002. Role of β 3-endonexin in the regulation of NF κ B-dependent expression of urokinase-type plasminogen activator receptor. *J. Cell Sci.* 115: 3879-3888.
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- Li, D., et al. 2004. The NRIF3 family of transcriptional coregulators induces rapid and profound apoptosis in breast cancer cells. *Mol. Cell. Biol.* 24: 3838-3848.
- Talukder, A.H., et al. 2004. Metastasis-associated protein 1 interacts with NRIF3, an estrogen-inducible nuclear receptor coregulator. *Mol. Cell. Biol.* 24: 6581-6591.
- Okada, M., et al. 2006. The CENP-H-I complex is required for the efficient incorporation of newly synthesized CENP-A into centromeres. *Nat. Cell Biol.* 8: 446-457.

CHROMOSOMAL LOCATION

Genetic locus: Itgb3bp (mouse) mapping to 4 C6.

PRODUCT

CENP-R 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 CENP-R shRNA Plasmid (m): sc-72863-SH and CENP-R shRNA (m) Lentiviral Particles: sc-72863-V as alternate gene silencing products.

For independent verification of CENP-R (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-72863A, sc-72863B and sc-72863C.

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

CENP-R siRNA (m) is recommended for the inhibition of CENP-R 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CENP-R gene expression knockdown using RT-PCR Primer: CENP-R (m)-PR: sc-72863-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.