SANTA CRUZ BIOTECHNOLOGY, INC.

CTR9 siRNA (h): sc-77047

BACKGROUND

CTR9 (Ctr9, Paf1/RNA polymerase II complex component, homolog), also known as SH2BP1 (SH2 domain-binding protein 1), TSBP or p150, is a 1,173 amino acid nuclear protein that contains 16 TPR repeats. Widely expressed, CTR9 interacts with Paf1, LEO1 and Parafibromin to form the PAF protein complex. Human and mouse CTR9 share 98.6% amino acid sequence homology, and the gene encoding CTR9 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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2. Malek, S.N., et al. 1996. p150TSP, a conserved nuclear phosphoprotein that contains multiple tetratricopeptide repeats and binds specifically to SH2 domains. J. Biol. Chem. 271: 6952-6962.
3. Jira, P.E., et al. 2003. Smith-Lemli-Opitz syndrome and the DHCR7 gene. Ann. Hum. Genet. 67: 269-280.
4. Rozenblatt-Rosen, O., et al. 2005. The parafibromin tumor suppressor protein is part of a human Paf1 complex. Mol. Cell. Biol. 25: 612-620.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609366. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: CTR9 (human) mapping to 11p15.3.

PRODUCT

CTR9 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 CTR9 shRNA Plasmid (h): sc-77047-SH and CTR9 shRNA (h) Lentiviral Particles: sc-77047-V as alternate gene silencing products.

For independent verification of CTR9 (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-77047A, sc-77047B and sc-77047C.

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

CTR9 siRNA (h) is recommended for the inhibition of CTR9 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 CTR9 gene expression knockdown using RT-PCR Primer: CTR9 (h)-PR: sc-77047-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.