SANTA CRUZ BIOTECHNOLOGY, INC.

CRN siRNA (h): sc-77028

BACKGROUND

CRN (crooked neck-like protein 1) is a widely-expressed protein encoded by the human gene CRNKL1. CRN belongs to the crooked-neck family, contains seventeen HAT repeats and is involved in the pre-mRNA splicing process. CRN is essential for embryogenesis and has also been implicated in cell cycle progression. CRN co-localizes with protein splicing factors into distinct subnuclear domains associated with snRNP biogenesis. CRN binds to splicing complexes simultaneously with the addition of the U4/U6.U5 tri-snRNP particle (non-coding RNA component of the major U2-dependent spliceosome).

REFERENCES

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2. Raisin-Tani, S. and Lεopold, P. 2002. *Drosophila* crooked-neck protein co-fractionates in a multiprotein complex with splicing factors. Biochem. Biophys. Res. Commun. 296: 288-292.
3. Chung, S., Zhou, Z., Huddleston, K.A., Harrison, D.A., Reed, R., Coleman, T.A. and Rymond, B.C. 2002. Crooked neck is a component of the human spliceosome and implicated in the splicing process. Biochim. Biophys. Acta 1576: 287-297.
4. Deloukas, P., Matthews, L.H., Ashurst, J., Burton, J., Gilbert, J.G., Jones, M., Stavrides, G., Almeida, J.P., Babbage, A.K., Bagguley, C.L., Bailey, J.,. Tracey, A., Tromans, A.C., Vaudin, M., Wall, M., Wallis, J.M., et al. 2002. The DNA sequence and comparative analysis of human chromosome 20. Nature 414: 865-871.
5. Jurica, M.S., Licklider, L.J., Gygi, S.R., Grigorieff, N. and Moore, M.J. 2002. Purification and characterization of native spliceosomes suitable for three-dimensional structural analysis. RNA 8: 426-439.
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CHROMOSOMAL LOCATION

Genetic locus: CRNKL1 (human) mapping to 20p11.23.

PRODUCT

CRN 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 CRN shRNA Plasmid (h): sc-77028-SH and CRN shRNA (h) Lentiviral Particles: sc-77028-V as alternate gene silencing products.

For independent verification of CRN (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-77028A, sc-77028B and sc-77028C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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

CRN siRNA (h) is recommended for the inhibition of CRN 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.

GENE EXPRESSION MONITORING

CRN (2212C1a): sc-81235 is recommended as a control antibody for monitoring of CRN 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CRN gene expression knockdown using RT-PCR Primer: CRN (h)-PR: sc-77028-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.