

# CNBD2 siRNA (h): sc-72713

## BACKGROUND

CNBD2 (cyclic nucleotide-binding domain-containing protein 2), also known as CNMPD1 or C20orf152, is a 576 amino acid protein that contains one cyclic nucleotide-binding domain. Existing as three alternatively spliced isoforms, CNBD2 is encoded by a gene mapping to human chromosome 20q11.23. Representing about 2% of human DNA, chromosome 20 consists of approximately 63 million bases and 600 genes. Chromosome 20 contains a region with numerous genes expressed in the epididymis that are thought important for seminal production and some viewed as potential targets for male contraception. The PRNP gene encoding the prion protein associated with spongiform encephalopathies, like Creutzfeldt-Jakob disease, is found on chromosome 20. Amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome are also associated with chromosome 20.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CNBD2 (human) mapping to 20q11.23.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PRODUCT

CNBD2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CNBD2 shRNA Plasmid (h): sc-72713-SH and CNBD2 shRNA (h) Lentiviral Particles: sc-72713-V as alternate gene silencing products.

For independent verification of CNBD2 (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-72713A, sc-72713B and sc-72713C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

CNBD2 siRNA (h) is recommended for the inhibition of CNBD2 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  $\mu$ M in 66  $\mu$ 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 CNBD2 gene expression knockdown using RT-PCR Primer: CNBD2 (h)-PR: sc-72713-PR (20  $\mu$ 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.