SANTA CRUZ BIOTECHNOLOGY, INC.

CCP2 siRNA (h): sc-96960

BACKGROUND

The peptidase M14 family of carboxypeptidases (CPs) are involved in various functions throughout the body which include digestion of food and biosynthesis of peptides that function in intercellular signaling. CCP2 (cytosolic carboxypeptidase 2), also known as AGBL2 (ATP/GTP binding protein-like 2), is a 902 amino acid cytoplasmic protein belonging to the peptidase M14 family. CCP2 is considered a metallocarboxypeptidase that may play a role in the processing of tubulin. CCP2 binds one zinc ion per subunit as a cofactor and exists as three alternatively spliced isoforms. The gene encoding CCP2 is located on human chromosome 11p11.2. Chromosome 11 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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CHROMOSOMAL LOCATION

Genetic locus: AGBL2 (human) mapping to 11p11.2.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

CCP2 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 CCP2 shRNA Plasmid (h): sc-96960-SH and CCP2 shRNA (h) Lentiviral Particles: sc-96960-V as alternate gene silencing products.

For independent verification of CCP2 (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-96960A, sc-96960B and sc-96960C.

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

CCP2 siRNA (h) is recommended for the inhibition of CCP2 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 CCP2 gene expression knockdown using RT-PCR Primer: CCP2 (h)-PR: sc-96960-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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