SANTA CRUZ BIOTECHNOLOGY, INC.

CEP162 siRNA (h): sc-95330

BACKGROUND

CEP162 (Centrosomal protein of 162 kDa), also known as KIAA1009 or QN1 (quail neororetina 1), is a 1,403 amino acid protein in the CEP162 family and containing four coiled coil domains. CEP162 is an axoneme-associated protein required to promote the assembly of the transition zone at the base of primary cilia. CEP162 is localized at the distal ends of the centrioles before ciliogenesis and acts by specifically recognizing and binding the axonemal microtubule, effectively restricting zone formation specifically at the cilia base. During mitosis, CEP162 is located at the spindle poles and the centrosomes and is essential for chromosome segregation and spindle assembly, interacting with α-Tubulin. CEP162 interacts with CEP290 and is required to mediate its association with microtubules. The CEP162 gene is widely conserved, including mouse, rat, zebrafish, canine and bovine.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: CEP162 (human) mapping to 6q14.2.

PRODUCT

CEP162 siRNA (h) is a pool of 2 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 CEP162 shRNA Plasmid (h): sc-95330-SH and CEP162 shRNA (h) Lentiviral Particles: sc-95330-V as alternate gene silencing products.

For independent verification of CEP162 (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-95330A and sc-95330B.

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

CEP162 siRNA (h) is recommended for the inhibition of CEP162 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 CEP162 gene expression knockdown using RT-PCR Primer: CEP162 (h)-PR: sc-95330-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.