SANTA CRUZ BIOTECHNOLOGY, INC.

# CEP152 siRNA (h): sc-90225

## BACKGROUND

CEP152, also known as centrosomal protein of 152 kDa, MCPH4 or SCKL5, is a 1,654 amino acid protein that is required for centrosome duplication. CEP152 is responsible for regulating genomic integrity as well as initiating ATR-mediated checkpoint signaling in response to DNA damage. CEP152 interacts with Sak and CENPJ, which are important for centriole formation as well as the cylin-dependent kinase 2-interacting protein (CINP). Defects in CEP152 leads to Seckel syndrome type 5 (SCKL5) and microcephaly primary type 4 (MCPH4), both of which are congenital diseases and cause mental retardation. CEP152 exists as three different alternatively spliced isoforms and is post-translationally phosphorylated at amino acid residue 1,258 (tyrosine) and 1,405 (serine). The gene encoding CEP152 maps to human chromosome 15q21.1.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: CEP152 (human) mapping to 15q21.1.

## PRODUCT

CEP152 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 CEP152 shRNA Plasmid (h): sc-90225-SH and CEP152 shRNA (h) Lentiviral Particles: sc-90225-V as alternate gene silencing products.

For independent verification of CEP152 (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-90225A, sc-90225B and sc-90225C.

## 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

CEP152 siRNA (h) is recommended for the inhibition of CEP152 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 CEP152 gene expression knockdown using RT-PCR Primer: CEP152 (h)-PR: sc-90225-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS


1. Vásquez-Limeta, A., Lukasik, K., Kong, D., Sullenberger, C., Luvsanjav, D., Sahabandu, N., Chari, R. and Loncarek, J. 2022. CPAP insufficiency leads to incomplete centrioles that duplicate but fragment. J. Cell Biol. 221: e202108018.


## RESEARCH USE

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