SANTA CRUZ BIOTECHNOLOGY, INC.

# CLIP3 siRNA (m): sc-142392

## BACKGROUND

CLIP3 (CAP-GLY domain containing linker protein 3), also known as RSNL1 or CLIPR-59, is a 547 amino acid cytoplasmic protein that localizes to Golgi stacks as well as tubulovesicular elements juxtaposed to Golgi cisternae. Composed of three ANK repeats and two CAP-Gly domains, CLIP3 may function as a cytoplasmic linker protein that is involved in TGN-endosome dynamics. CLIP3 acts as a scaffold protein by modulating Akt cellular compartmentalization and phosphorylation of Akt substrates in adipocytes, suggesting a role in the regulation of adipocyte glucose transport. Belonging to the CLIP-170 family of cytoplasmic linker proteins, CLIP3 also functions as a chaperone, allowing immediate interaction between tubulin and the raft component GD3, during cell apoptosis triggered by FAS. CLIP3 is encoded by a gene located on human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

## REFERENCES


1. Perez, F., et al. 2002. CLIPR-59, a new *trans*-Golgi/TGN cytoplasmic linker protein belonging to the CLIP-170 family. J. Cell Biol. 156: 631-642.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607382. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Lallemand-Breitenbach, V., et al. 2004. CLIPR-59 is a lipid raft-associated protein containing a cytoskeleton-associated protein glycine-rich domain (CAP-Gly) that perturbs microtubule dynamics. J. Biol. Chem. 279: 41168-41178.
4. Steinmetz, M.O., et al. 2008. Capturing protein tails by CAP-Gly domains. Trends Biochem. Sci. 33: 535-545.
5. Ding, J., et al. 2009. ClipR-59 interacts with Akt and regulates Akt cellular compartmentalization. Mol. Cell. Biol. 29: 1459-1471.


## CHROMOSOMAL LOCATION

Genetic locus: Clip3 (mouse) mapping to 7 B1.

## PRODUCT

CLIP3 siRNA (m) 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 CLIP3 shRNA Plasmid (m): sc-142392-SH and CLIP3 shRNA (m) Lentiviral Particles: sc-142392-V as alternate gene silencing products.

For independent verification of CLIP3 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-142392A, sc-142392B and sc-142392C.

## PROTOCOLS

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

## 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

CLIP3 siRNA (m) is recommended for the inhibition of CLIP3 expression in mouse 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 60 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 CLIP3 gene expression knockdown using RT-PCR Primer: CLIP3 (m)-PR: sc-142392-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.