SANTA CRUZ BIOTECHNOLOGY, INC.

Cdc37L1 siRNA (m): sc-142210

BACKGROUND

The eukaryotic cell division cycle consists of a number of gene-controlled sequences that involve cyclin dependent kinases (Cdks) and cell division cycle (Cdc) proteins. Cdc37L1 (cell division cycle 37 homolog *(S. cerevisiae)*-like 1), also known as CDC37B or HARC, is a 337 amino acid protein that localizes to the cytoplasm and belongs to the Cdc37 family. Expressed in liver, heart, brain, kidney, placenta and skeletal muscle, Cdc37L1 forms a complex with HSP 70 and HSP 90 and functions as a co-chaperone that binds to target proteins and enhances their interaction with HSPs. The gene encoding Cdc37L1 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Scholz, G.M., et al. 2001. Identification and characterization of Harc, a novel Hsp90-associating relative of Cdc37. J. Biol. Chem. 276: 30971-30979.
2. MacLean, M., et al. 2003. Cdc37 goes beyond Hsp90 and kinases. Cell Stress Chaperones 8: 114-119.
3. Roiniotis, J., et al. 2005. Domain-mediated dimerization of the Hsp90 cochaperones Harc and Cdc37. Biochemistry 44: 6662-6669.
4. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610346. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Cartledge, K., et al. 2007. Importance of the C-terminal domain of Harc for binding to Hsp70 and Hop as well as its response to heat shock. Biochemistry 46: 15144-15152.
6. Kim, T.W., et al. 2008. Identification of replicative senescence-associated genes in human umbilical vein endothelial cells by an annealing control primer system. Exp. Gerontol. 43: 286-295.

CHROMOSOMAL LOCATION

Genetic locus: Cdc37l1 (mouse) mapping to 19 C1.

PRODUCT

Cdc37L1 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 Cdc37L1 shRNA Plasmid (m): sc-142210-SH and Cdc37L1 shRNA (m) Lentiviral Particles: sc-142210-V as alternate gene silencing products.

For independent verification of Cdc37L1 (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-142210A, sc-142210B and sc-142210C.

RESEARCH USE

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

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

Cdc37L1 siRNA (m) is recommended for the inhibition of Cdc37L1 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 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 Cdc37L1 gene expression knockdown using RT-PCR Primer: Cdc37L1 (m)-PR: sc-142210-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.