SANTA CRUZ BIOTECHNOLOGY, INC.

CKAP2L siRNA (m): sc-142353

BACKGROUND

CKAP2 (cytoskeleton associated protein 2) is a cytoskeletal protein expressed in thymus and testis. Utilized during mitosis and involved in regulating functions of microtubules, CKAP2 also plays a role in cellular death and the cell cycle. Before mitosis, CKAP2 is expressed in the cell cycle between phases G_1 and S, and accumulates between phases S and G_2. During mitosis, when the anaphase promoting complex is activated, CKAP2 is degraded. The regulation of CKAP2 is essential for proper spindle functions and cytokinesis, and it is thought that CKAP2 function is mediated via phosphorylation and dephosphorylation. CKAP2L (cytoskeleton associated protein 2) is a 745 amino acid protein that shares homology with CKAP2 and belongs to the CKAP2 family. Existing as two alternatively spliced isoforms, CKAP2L is encoded by a gene that maps to human chromosome 2q13.

REFERENCES

1. Udina, I.G., et al. 2001. Evolutionarily-conserved gene CKAP2,located in region 13q14.3 of the human genome, is frequently rearranged in various tumors. Genetika 37: 120-123.
2. Rakhmanaliev, E.R., et al. 2002. The structure of the human oncogenesis-associated CKAP2 (LB1) gene. Mol. Biol. 36: 985-989.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611569. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Bae, C.D., et al. 2003. Up-regulation of cytoskeletal-associated protein 2 in primary human gastric adenocarcinomas. J. Cancer Res. Clin. Oncol. 129: 621-630.
5. Tsuchihara, K., et al. 2005. Ckap2 regulates aneuploidy, cell cycling, and cell death in a p53-dependent manner. Cancer Res. 65: 6685-6691.
6. Jeon, S.M., et al. 2006. A cytoskeleton-associated protein, TMAP/CKAP2, is involved in the proliferation of human foreskin fibroblasts. Biochem. Biophys. Res. Commun. 348: 222-228.

CHROMOSOMAL LOCATION

Genetic locus: Ckap2l (mouse) mapping to 2 F1.

PRODUCT

CKAP2L 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 CKAP2L shRNA Plasmid (m): sc-142353-SH and CKAP2L shRNA (m) Lentiviral Particles: sc-142353-V as alternate gene silencing products.

For independent verification of CKAP2L (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-142353A, sc-142353B and sc-142353C.

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

CKAP2L siRNA (m) is recommended for the inhibition of CKAP2L 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 CKAP2L gene expression knockdown using RT-PCR Primer: CKAP2L (m)-PR: sc-142353-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.