SANTA CRUZ BIOTECHNOLOGY, INC.

CINAP siRNA (m): sc-72909

BACKGROUND

The CASK-interacting nucleosome assembly protein (CINAP), also designated Testis-specific Y-encoded-like protein 2 (TSPYL2), Differentially-expressed nucleolar TGF-β1 target protein (DENTT), Cell division autoantigen 1 (CDA1) or Nuclear protein of 79 kDa (NP79), is a 693 amino acid protein that forms a complex with CASK and TRB1, which modulates gene expression in response to neuronal synaptic activity. The CINAP/CASK/TRB1 complex interacts with histones and likely facilitates nucleosome assembly. The complex is also thought to inhibit cell proliferation by inducing p53-dependent CDKN1A expression. CINAP is ubiquitously expressed, with highest levels in brain, testis and heart, and lowest levels in liver and pancreas.

REFERENCES

1. Ozbun, L.L., et al. 2001. Identification of differentially expressed nucleolar TGF-β1 target (DENTT) in human lung cancer cells that is a new member of the TSPY/SET/NAP-1 superfamily. Genomics 73: 179-193.
2. Chai, Z., et al. 2001. SET-related cell division autoantigen-1 (CDA1) arrests cell growth. J. Biol. Chem. 276: 33665-33674.
3. Eichmuller, S., et al. 2001. Serological detection of cutaneous T-cell lymphoma-associated antigens. Proc. Natl. Acad. Sci. USA 98: 629-634.
4. Delbridge, M.L., et al. 2004. TSPY, the candidate gonadoblastoma gene on the human Y chromosome, has a widely expressed homologue on the X-implications for Y chromosome evolution. Chromosome Res. 12: 345-356.
5. Wang, G.S., et al. 2004. Transcriptional modification by a CASK-interacting nucleosome assembly protein. Neuron 42: 113-128.
6. Ozbun, L.L., et al. 2005. Differentially expressed nucleolar TGF-β1 target (DENTT) shows tissue-specific nuclear and cytoplasmic localization and increases TGF-β1-responsive transcription in primates. Biochim. Biophys. Acta 1728: 163-180.
7. Santama, N., et al. 2005. Characterization of hCINAP, a novel coilin-interacting protein encoded by a transcript from the transcription factor TAFI-ID32 locus. J. Biol. Chem. 280: 36429-36441.
8. Hsueh, Y.P. 2006. The role of the MAGUK protein CASK in neural development and synaptic function. Curr. Med. Chem. 13: 1915-1927.

CHROMOSOMAL LOCATION

Genetic locus: Tspyl2 (mouse) mapping to X F3.

PRODUCT

CINAP 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 CINAP shRNA Plasmid (m): sc-72909-SH and CINAP shRNA (m) Lentiviral Particles: sc-72909-V as alternate gene silencing products.

For independent verification of CINAP (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-72909A, sc-72909B and sc-72909C.

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

CINAP siRNA (m) is recommended for the inhibition of CINAP 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 CINAP gene expression knockdown using RT-PCR Primer: CINAP (m)-PR: sc-72909-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.

PROTOCOLS

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