SANTA CRUZ BIOTECHNOLOGY, INC.

HAPLN1 siRNA (m): sc-60095

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The human cartilage link protein, also designated HAPLN1, is a member of the hyaluronan and proteoglycan link protein (HAPLN) family of proteins. This family contains 4 proteins with approximately 50% homology. The human cartilage link protein strengthens tissue architecture by using hyaluronic acid to stabilize the aggregates of proteoglycan monomers inside the extracellular cartilage matrix. It is widely expressed in most tissue types except brain tissue where, much like the other human cartilage link protein genes, it is weakly expressed. The HAPLN and the brain-specific CSPG genes, as well as other members of the link module superfamily, appear to have a common ancestral gene origin.

REFERENCES

1. Osborne-Lawrence, S.L., et al. 1990. Complete amino acid sequence of human cartilage link protein (CRTL1) deduced from cDNA clones and chromosomal assignment of the gene. Genomics 8: 562-567.
2. Rhodes, C., et al. 1991. Characterization of the promoter for the rat and human link protein gene. Nucleic Acids Res. 19: 1933-1939.
3. Colas, J.F., et al. 2003. Assessing the contributions of gene products to the form-shaping events of neurulation: a transgenic approach in chick. Genesis 37: 64-75.
4. Czipri, M., et al. 2003. Genetic rescue of chondrodysplasia and the perinatal lethal effect of cartilage link protein deficiency. J. Biol. Chem. 278: 39214-39223.
5. Kou, I., et al. 2004. SOX9-dependent and -independent transcriptional regulation of human cartilage link protein. J. Biol. Chem. 279: 50942-50948.
6. Naishiro, Y., et al. 2005. Morphological and transcriptional responses of untransformed intestinal epithelial cells to an oncogenic β-catenin protein. Oncogene 24: 3141-3153.

CHROMOSOMAL LOCATION

Genetic locus: Hapln1 (mouse) mapping to 13 C3.

PRODUCT

HAPLN1 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 HAPLN1 shRNA Plasmid (m): sc-60095-SH and HAPLN1 shRNA (m) Lentiviral Particles: sc-60095-V as alternate gene silencing products.

For independent verification of HAPLN1 (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-60095A, sc-60095B and sc-60095C.

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

HAPLN1 siRNA (m) is recommended for the inhibition of HAPLN1 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 HAPLN1 gene expression knockdown using RT-PCR Primer: HAPLN1 (m)-PR: sc-60095-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.