SANTA CRUZ BIOTECHNOLOGY, INC.

HAPLN3 siRNA (m): sc-62440

BACKGROUND

HAPLN3 (hyaluronan and proteoglycan link protein 3) is a 360 amino acid protein encoded by the human gene HAPLN3. HAPLN3 belongs to the HAPLN family and contains one Ig-like V-type (immunoglobulin-like) domain and two link domains. HAPLN3 mediates the binding of complexes containing hyaluronic acid. It may play a pivotal role in the formation of the hyaluronan-associated matrix in the central nervous system (CNS), which facilitates neuronal conduction and general structural stabilization. HAPLN3 may also be involved in the formation of extracellular matrices contributing to peri-neuronal nets and facilitate the understanding of a functional role of these extracellular matrices. HAPLN3 is widely expressed, with highest levels in spleen and placenta.

REFERENCES

1. Evanko, S.P., et al. 1999. Formation of hyaluronan- and versican-rich pericellular matrix is required for proliferation and migration of vascular smooth muscle cells. Arterioscler. Thromb. Vasc. Biol. 19: 1004-1013.
2. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.
3. Spicer, A.P., et al. 2003. A hyaluronan binding link protein gene family whose members are physically linked adjacent to chondroitin sul-fate proteoglycan core protein genes: the missing links. J. Biol. Chem. 278: 21083-21091.
4. Bekku, Y., et al. 2003. Molecular cloning of Bral2, a novel brain-specific link protein, and immunohistochemical colocalization with brevican in perineuronal nets. Mol. Cell. Neurosci. 24: 148-159.
5. Ogawa, H., et al. 2004. Lp3/HAPLN3, a novel link protein that co-localizes with versican and is coordinately up-regulated by platelet-derived growth factor in arterial smooth muscle cells. Matrix Biol. 23: 287-298.
6. Carulli, D., et al. 2005. Composition of perineuronal nets in the adult rat cerebellum and the cellular origin of their components. J. Comp. Neurol. 494: 559-577.

CHROMOSOMAL LOCATION

Genetic locus: Hapln3 (mouse) mapping to 7 D3.

PRODUCT

HAPLN3 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 HAPLN3 shRNA Plasmid (m): sc-62440-SH and HAPLN3 shRNA (m) Lentiviral Particles: sc-62440-V as alternate gene silencing products.

For independent verification of HAPLN3 (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-62440A, sc-62440B and sc-62440C.

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

HAPLN3 siRNA (m) is recommended for the inhibition of HAPLN3 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 HAPLN3 gene expression knockdown using RT-PCR Primer: HAPLN3 (m)-PR: sc-62440-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.