SANTA CRUZ BIOTECHNOLOGY, INC.

HAPLN2 siRNA (m): sc-62438

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The Power to Question

BACKGROUND

HAPLN2 (hyaluronan and proteoglycan link protein 2, brain link protein 1) is a 340 amino acid protein encoded by the human gene HAPLN2. HAPLN2 belongs to the HAPLN family and contains one immunoglobulin (Ig)-like, V-type domain and two link domains. HAPLN2 mediates a firm binding of versican V2 to hyaluronic acid. HAPLN2 is believed to 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. HAPLN2 may also be involved in the formation of extracellular matrices, contributing to perineuronal nets and facilitating the understanding of a functional role of these extracellular matrices. HAPLN2 is found in several nuclei throughout the midbrain and hindbrain in a perineuronal net pattern.

REFERENCES

1. Deyst, K.A. and Toole, B.P. 1996. Production of hyaluronan-dependent pericellular matrix by embryonic rat glial cells. Brain Res. Dev. Brain Res. 88: 122-125.
2. Hirakawa, S., et al. 2000. The brain link protein-1 (Bral1): cDNA cloning, genomic structure, and characterization as a novel link protein expressed in adult brain. Biochem. Biophys. Res. Commun. 276: 982-989.
3. Oohashi, T., et al. 2002. Bral1, a brain-specific link protein, colocalizing with the versican V2 isoform at the nodes of Ranvier in developing and adult mouse central nervous systems. Mol. Cell. Neurosci. 19: 43-57.
4. Nomoto, H., et al. 2002. Human BRAL1 and BCAN genes that belong to the link-module superfamily are tandemly arranged on chromosome 1q21-23. Acta Med. Okayama 56: 25-29.
5. 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.

CHROMOSOMAL LOCATION

Genetic locus: Hapln2 (mouse) mapping to 3 F1.

PRODUCT

HAPLN2 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 HAPLN2 shRNA Plasmid (m): sc-62438-SH and HAPLN2 shRNA (m) Lentiviral Particles: sc-62438-V as alternate gene silencing products.

For independent verification of HAPLN2 (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-62438A, sc-62438B and sc-62438C.

PROTOCOLS

See our web site at www.scbt.com or our catalog 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

HAPLN2 siRNA (m) is recommended for the inhibition of HAPLN2 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.

GENE EXPRESSION MONITORING

HAPLN2 (T-20): sc-55105 is recommended as a control antibody for monitoring of HAPLN2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor HAPLN2 gene expression knockdown using RT-PCR Primer: HAPLN2 (m)-PR: sc-62438-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.