SANTA CRUZ BIOTECHNOLOGY, INC.

Chondrolectin siRNA (m): sc-62109

BACKGROUND

Chondrolectin, also known as transmembrane protein MT75 or CHODL, is an N-glycosylated, single pass type I membrane protein that localizes to the endoplasmic reticulum (ER)-Golgi apparatus. Chondrolectin contains one carbohydrate recognition (CRD) domain and is predominantly expressed in vascular muscle of testis, red pulp of spleen and smooth muscle of prostate. Chondrolectin is also found in heart muscle, skeletal muscle, and small intestine. Chondrolectin shares significant homology with the hyaluronan receptor, layilin, but does not appear to interact with hyaluronan. At least two other isoforms of Chondrolectin exist due to alternative splicing. They are soluble proteins and are designated $CHODL_{\Delta E}$ and $CHODL_{f\Delta E}$. These isoforms may play an important role in T cell development.

REFERENCES

1. Weng, L., et al. 2002. Molecular cloning and characterization of human chondrolectin, a novel type I transmembrane protein homologous to C-type lectins. Genomics 80: 62-70.
2. Weng, L., et al. 2003. Isolation and characterization of chondrolectin (Chodl), a novel C-type lectin predominantly expressed in muscle cells. Gene 308: 21-29.
3. Weng, L., et al. 2003. A novel alternative spliced chondrolectin isoform lacking the transmembrane domain is expressed during T cell maturation. J. Biol. Chem. 278: 19164-19170.
4. Molloy, C.A., et al. 2005. Evidence for linkage on 21q and 7q in a subset of autism characterized by developmental regression. Mol. Psychiatry 10: 741-746.
5. Claessens, A., et al. 2007. Expression and localization of $CHODL_{\Delta E}$/$CHODL_{f\Delta E}$, the soluble isoform of chondrolectin. Cell Biol. Int. 31: 1323-1330.

CHROMOSOMAL LOCATION

Genetic locus: Chodl (mouse) mapping to 16 C3.1.

PRODUCT

Chondrolectin 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 Chondrolectin shRNA Plasmid (m): sc-62109-SH and Chondrolectin shRNA (m) Lentiviral Particles: sc-62109-V as alternate gene silencing products.

For independent verification of Chondrolectin (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-62109A, sc-62109B and sc-62109C.

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

Chondrolectin siRNA (m) is recommended for the inhibition of Chondrolectin 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

Chondrolectin (1A5): sc-517077 is recommended as a control antibody for monitoring of Chondrolectin 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 reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Chondrolectin gene expression knockdown using RT-PCR Primer: Chondrolectin (m)-PR: sc-62109-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.