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SANTA CRUZ BIOTECHNOLOGY, INC.

COL9A3 siRNA (m): sc-142477

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

COL9A3 (also known as Collagen α3 Type IX) belongs to the fibril-associated collagens with interrupted helices (FACIT) family. COL9 is expressed in cartilage, cornea and in the vitreous portion of the eye and is a heterotrimer composed of COL9A1 and COL9A2. When expressed in hyaline cartilage, COL9 posseses a large N-terminal globular domain (NC4). Mutations in the COL9A3 gene are associated with multiple epiphyseal dysplasia (MED), a chondrodysplasia, in humans. COL9 is often co-localized with COL2A1, and may play a role in the interaction of fibrils between COL2A1 and COL9.

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CHROMOSOMAL LOCATION

Genetic locus: Col9a3 (mouse) mapping to 2 H4.

PROTOCOLS

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

PRODUCT

COL9A3 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 COL9A3 shRNA Plasmid (m): sc-142477-SH and COL9A3 shRNA (m) Lentiviral Particles: sc-142477-V as alternate gene silencing products.

For independent verification of COL9A3 (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-142477A, sc-142477B and sc-142477C.

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

COL9A3 siRNA (m) is recommended for the inhibition of COL9A3 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 COL9A3 gene expression knockdown using RT-PCR Primer: COL9A3 (m)-PR: sc-142477-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.