SANTA CRUZ BIOTECHNOLOGY, INC.

galectin-14 siRNA (h): sc-97484

BACKGROUND

Galectins are a family of soluble β-galactoside-binding animal lectins that modulate cell-to-cell adhesion and cell-to-extracellular matrix (ECM) interactions, and play a role in tumor progression, pre-mRNA splicing and apoptosis. Galectin-14, also known as Gal-14, Placental protein 13-like (PPL13), LGALS14 or Charcot-Leyden crystal protein 2 (CLC2), is a 139 amino acid protein belonging to the galectin family. Galectin-14, which possesses a putative carbohydrate recognition domain, localizes to nucleus and is highly expressed in placenta and eosinophil-rich cells. Galectin-14 may also be expressed at low levels in aorta and ovary, as well as fetal brain, spleen and liver. In response to allergens, galectin-14 is released from eosinophils into the lumen of the lung and is therefore thought to have an important role in eosinophil function and allergic inflammation.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: LGALS14 (human) mapping to 19q13.2.

PRODUCT

galectin-14 siRNA (h) is a pool of 2 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 galectin-14 shRNA Plasmid (h): sc-97484-SH and galectin-14 shRNA (h) Lentiviral Particles: sc-97484-V as alternate gene silencing products.

For independent verification of galectin-14 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-97484A and sc-97484B.

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

galectin-14 siRNA (h) is recommended for the inhibition of galectin-14 expression in human 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 galectin-14 gene expression knockdown using RT-PCR Primer: galectin-14 (h)-PR: sc-97484-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.