SANTA CRUZ BIOTECHNOLOGY, INC.

CLLU1 siRNA (h): sc-95997

BACKGROUND

Chronic lymphocytic leukemia (CLL) is an incurable disease characterized by the presence of small mature lymphocytes, intense accumulation of monoclonal B cells and a characteristic CD5 and CD19 co-expression phenotype. While the clinical course of CLL can be highly variable, a CLL specific protein known as CLLU1 (chronic lymphocytic leukemia up-regulated 1) is expressed in CLL patients, with high CLLU1 expression associated with shorter overall survival. Consisting of 121 amino acids, CLLU1 has been predicted to interact with interleukin 4 receptor (IL-4R) and is encoded by a gene located on human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p.

REFERENCES

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3. Josefsson, P., et al. 2007. CLLU1 expression analysis adds prognostic information to risk prediction in chronic lymphocytic leukemia. Blood 109: 4973-4979.
4. Chen, L., et al. 2007. The prognostic evaluation of CLLU1 expression levels in 50 Chinese patients with chronic lymphocytic leukemia. Leuk. Lymphoma 48: 1785-1792.
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6. Lo, F.S., et al. 2009. High resolution melting analysis for mutation detection for PTPN11 gene: applications of this method for diagnosis of Noonan syndrome. Clin. Chim. Acta 409: 75-77.
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CHROMOSOMAL LOCATION

Genetic locus: CLLU1 (human) mapping to 12q22.

PRODUCT

CLLU1 siRNA (h) 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 CLLU1 shRNA Plasmid (h): sc-95997-SH and CLLU1 shRNA (h) Lentiviral Particles: sc-95997-V as alternate gene silencing products.

For independent verification of CLLU1 (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-95997A, sc-95997B and sc-95997C.

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

CLLU1 siRNA (h) is recommended for the inhibition of CLLU1 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 CLLU1 gene expression knockdown using RT-PCR Primer: CLLU1 (h)-PR: sc-95997-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.