SANTA CRUZ BIOTECHNOLOGY, INC.

BTNL8 siRNA (h): sc-91741

BACKGROUND

BTNL8 (butyrophilin-like 8) is a 500 amino acid single-pass type I membrane protein that belongs to the immunoglobulin superfamily and contains one B30.2/SPRY domain and one Ig-like V-type (immunoglobulin-like) domain. Expressed as multiple alternatively spliced isoforms, BTNL8 is encoded by a gene which maps to human chromosome 5. With 181 million base pairs encoding around 1,000 genes, chromosome 5 comprises about 6% of human genomic DNA. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm on chromosome 5 is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
2. Joslyn, G., et al. 1991. Identification of deletion mutations and three new genes at the familial polyposis locus. Cell 66: 601-613.
3. Kinzler, K.W., et al. 1991. Identification of FAP locus genes from chromosome 5q21. Science 253: 661-665.
4. Nishisho, I., et al. 1991. Mutations of chromosome 5q21 genes in FAP and colorectal cancer patients. Science 253: 665-669.
5. Prieschl, E.E., et al. 1996. The murine homolog of TB2/DP1, a gene of the familial adenomatous polyposis (FAP) locus. Gene 169: 215-218.
6. Puente, X.S., et al. 2004. A genomic analysis of rat proteases and protease inhibitors. Genome Res. 14: 609-622.
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CHROMOSOMAL LOCATION

Genetic locus: BTNL8 (human) mapping to 5q35.3.

PRODUCT

BTNL8 siRNA (h) is a target-specific 19-25 nt siRNA 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 BTNL8 shRNA Plasmid (h): sc-91741-SH and BTNL8 shRNA (h) Lentiviral Particles: sc-91741-V as alternate gene silencing 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

BTNL8 siRNA (h) is recommended for the inhibition of BTNL8 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 BTNL8 gene expression knockdown using RT-PCR Primer: BTNL8 (h)-PR: sc-91741-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.