



SPINK6 siRNA (h): sc-91966

BACKGROUND

SPINK6 (serine peptidase inhibitor, kazal type 6), also known as BUSI2, is an 80 amino acid secreted protein that contains one kazal-like domain and is thought to function as a serine protease inhibitor. The gene encoding SPINK6 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also associated with chromosome 5 and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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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. Nishishio, 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.
7. Shin, S.M., et al. 2006. HCCR-1-interacting molecule "deleted in polyposis 1" plays a tumor-suppressor role in colon carcinogenesis. *Gastroenterology* 130: 2074-2086.

CHROMOSOMAL LOCATION

Genetic locus: SPINK6 (human) mapping to 5q32.

PRODUCT

SPINK6 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SPINK6 shRNA Plasmid (h): sc-91966-SH and SPINK6 shRNA (h) Lentiviral Particles: sc-91966-V as alternate gene silencing products.

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.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SPINK6 siRNA (h) is recommended for the inhibition of SPINK6 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 μ M in 66 μ l. 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 SPINK6 gene expression knockdown using RT-PCR Primer: SPINK6 (h)-PR: sc-91966-PR (20 μ l, 420 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.