

NAT-9 siRNA (h): sc-75878

BACKGROUND

Acetyltransferases and deacetylases are protein groups most often associated with oncogenesis and cell cycle regulation. NAT-9 (N-acetyltransferase 9), also known as EBSP (embryo brain-specific protein), is a 207 amino acid protein belonging to the acetyltransferase family and the GNAT subfamily. Containing a N-acetyltransferase domain, NAT-9 may be associated with psoriasis and psoriatic arthritis, a type of inflammatory/autoimmune disease that affects skin, tendons and/or joints of the hands and feet. Expressed as two isoforms produced by alternative splicing events, NAT-9 is encoded by a gene located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

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3. Bowcock, A.M. 2005. The genetics of psoriasis and autoimmunity. *Annu. Rev. Genomics Hum. Genet.* 6: 93-122.
4. Yamada, R. and Yamamoto, K. 2005. Recent findings on genes associated with inflammatory disease. *Mutat. Res.* 573: 136-151.
5. Morar, N., et al. 2006. Investigation of the chromosome 17q25 PSORS2 locus in atopic dermatitis. *J. Invest. Dermatol.* 126: 603-606.
6. Filer, C.E., et al. 2009. Investigation of association of genes NAT9, SLC9A3R1 and RAPTOR on chromosome 17q25 with psoriatic arthritis. *Ann. Rheum. Dis.* 68: 292-293.
7. Danik, J.S., et al. 2009. Novel loci, including those related to Crohn disease, psoriasis, and inflammation, identified in a genome-wide association study of Fibrinogen in 17,686 women: the women's genome health study. *Circ. Cardiovasc. Genet.* 2: 134-141.

CHROMOSOMAL LOCATION

Genetic locus: NAT9 (human) mapping to 17q25.1.

PRODUCT

NAT-9 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NAT-9 shRNA Plasmid (h): sc-75878-SH and NAT-9 shRNA (h) Lentiviral Particles: sc-75878-V as alternate gene silencing products.

For independent verification of NAT-9 (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-75878A, sc-75878B and sc-75878C.

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

NAT-9 siRNA (h) is recommended for the inhibition of NAT-9 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 NAT-9 gene expression knockdown using RT-PCR Primer: NAT-9 (h)-PR: sc-75878-PR (20 μ l). 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.