SANTA CRUZ BIOTECHNOLOGY, INC.

NAT-9 siRNA (m): sc-75879

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

1. Helms, C., et al. 2003. A putative RUNX1 binding site variant between SLC9A3R1 and NAT9 is associated with susceptibility to psoriasis. Nat. Genet. 35: 349-356.
2. Bowcock, A.M. and Cookson, W.O. 2004. The genetics of psoriasis, psoriatic arthritis and atopic dermatitis. Hum. Mol. Genet. 13: R43-R55.
3. Bowcock, A.M. 2005. The genetics of psoriasis and autoimmunity. Annu. Rev. Genomics Hum. Genet. 6: 93-122.
4. Yamada, R. and Ymamoto, 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 (mouse) mapping to 11 E2.

PRODUCT

NAT-9 siRNA (m) 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 NAT-9 shRNA Plasmid (m): sc-75879-SH and NAT-9 shRNA (m) Lentiviral Particles: sc-75879-V as alternate gene silencing products.

For independent verification of NAT-9 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-75879A, sc-75879B and sc-75879C.

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 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

NAT-9 siRNA (m) is recommended for the inhibition of NAT-9 expression in mouse 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 NAT-9 gene expression knockdown using RT-PCR Primer: NAT-9 (m)-PR: sc-75879-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.