SANTA CRUZ BIOTECHNOLOGY, INC.

AWAT1 siRNA (h): sc-91059

BACKGROUND

AWAT1 (Acyl-CoA wax alcohol acyltransferase 1) is a 328 amino acid protein that belongs to the diacylglycerol acyltransferase family. AWAT1 localizes to endoplasmic reticulum where it is considered a multi-pass membrane protein. AWAT1 is an acyltransferase that predominantly esterifies long chain (wax) alcohols with acyl-CoA-derived fatty acids to produce wax esters, suggesting that it plays a central role in lipid metabolism in skin. Predominantly expressed in skin, where it is limited to sebaceous gland, AWAT1 is expressed in more mature, centrally located cells prior to rupture and sebum release. AWAT1 is also ubiquitously expressed, except in spleen, with higher levels in thymus, prostate and testis. The AWAT1 gene is conserved in chimpanzee, canine, bovine, mouse and rat, and maps to human chromosome X.

REFERENCES

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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: AWAT1 (human) mapping to Xq13.1.

PRODUCT

AWAT1 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 AWAT1 shRNA Plasmid (h): sc-91059-SH and AWAT1 shRNA (h) Lentiviral Particles: sc-91059-V as alternate gene silencing products.

For independent verification of AWAT1 (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-91059A, sc-91059B and sc-91059C.

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

AWAT1 siRNA (h) is recommended for the inhibition of AWAT1 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 AWAT1 gene expression knockdown using RT-PCR Primer: AWAT1 (h)-PR: sc-91059-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.