SANTA CRUZ BIOTECHNOLOGY, INC.

BAAT siRNA (m): sc-141462

BACKGROUND

BAAT (bile acid coenzyme A (CoA): amino acid N-acyltransferase), also known as BAT, BACAT or glycine N-choloyltransferase, is a member of the C/M/P thioester hydrolase family of proteins. Localizing to the cytoplasm and to peroxisomes, BAAT plays an essential role in bile acid metabolism, being the sole enzyme responsible for catalyzing the second step in the conjugation of bile acids to taurine or glycine. The first step in this reaction is the conversion of bile acids to CoA thioesters by ACSVL6 (bile acid CoA ligase). The conjugation of bile acids is important for its excretion into bile and it is also important for protection against toxicity by the accumulation of unconjugated bile acids. BAAT can be found in liver, pancreas, intestine and gallbladder mucosa. Mutations in the gene encoding BAAT have been associated with familial hypercholanemia (FHCA), a disease characterized by fat malabsorption, an increase in serum bile acid concentrations and itching.

REFERENCES

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8. Pellicoro, A., et al. 2007. Human and rat bile acid-CoA:amino acid N-acyltransferase are liver-specific peroxisomal enzymes: implications for intracellular bile salt transport. Hepatology 45: 340-348.
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CHROMOSOMAL LOCATION

Genetic locus: Baat (mouse) mapping to 4 B1.

PROTOCOLS

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

PRODUCT

BAAT 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 BAAT shRNA Plasmid (m): sc-141462-SH and BAAT shRNA (m) Lentiviral Particles: sc-141462-V as alternate gene silencing products.

For independent verification of BAAT (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-141462A, sc-141462B and sc-141462C.

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

BAAT siRNA (m) is recommended for the inhibition of BAAT 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 BAAT gene expression knockdown using RT-PCR Primer: BAAT (m)-PR: sc-141462-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.