SANTA CRUZ BIOTECHNOLOGY, INC.

Afamin siRNA (h): sc-72462

BACKGROUND

Afamin (AFM), also known as α-albumin, is a 599 amino acid protein belonging to the ALB/AFP/VDB family. Members of the ALB/AFP/VDB family are encoded by four genes that localize to chromosome 4 in a tandem arrangement. The four genes encode proteins, including ALB, AFB, Afamin and DBP, that are structurally related serum transport proteins. Afamin is believed to play a role in the transport of a yet unknown ligand. Afamin is expressed in the liver and is secreted into the bloodstream. Afamin contains three ALB domains and is N-glycosylated.

REFERENCES

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3. Khan, M.A., et al. 2002. Bilirubin binding properties of pigeon serum Albumin and its comparison with human serum Albumin. Int. J. Biol. Macromol. 30: 171-178.
4. Jerkovic, L., et al. 2005. Afamin is a novel human vitamin E-binding glycoprotein characterization and *in vitro* expression. J. Proteome Res. 4: 889-899.
5. Liu, T., et al. 2005. Human plasma N-glycoproteome analysis by immunoaffinity subtraction, hydrazide chemistry, and mass spectrometry. J. Proteome Res. 4: 2070-2080.
6. Terentiev, A.A. and Moldogazieva, N.T. 2006. Structural and functional mapping of α-fetoprotein. Biochemistry 71: 120-132.
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CHROMOSOMAL LOCATION

Genetic locus: AFM (human) mapping to 4q13.3.

PRODUCT

Afamin 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 Afamin shRNA Plasmid (h): sc-72462-SH and Afamin shRNA (h) Lentiviral Particles: sc-72462-V as alternate gene silencing products.

For independent verification of Afamin (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-72462A, sc-72462B and sc-72462C.

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

Afamin siRNA (h) is recommended for the inhibition of Afamin 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.

GENE EXPRESSION MONITORING

Afamin (G-10): sc-373849 is recommended as a control antibody for monitoring of Afamin gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Afamin gene expression knockdown using RT-PCR Primer: Afamin (h)-PR: sc-72462-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.