SANTA CRUZ BIOTECHNOLOGY, INC.

ACBD6 siRNA (h): sc-88066

BACKGROUND

ACBD6 (acyl-CoA binding domain containing 6), also known as acyl-Coenzyme A binding domain containing 6, is a 282 amino acid modular protein. Encoded by a gene that maps to human chromosome 1q25.2, ACBD6 is expressed in placenta, spleen, umbilical cord blood, CD34-positive hematopoietic progenitor cells and bone marrow. Consisting of a monomer subunit, ACBD6 contains one ACB (acyl-CoA-binding) domain and two ANK repeats. ACBD6 participates in long-chain acyl-CoA binding activities with a strong preference for unsaturated, C18:1-CoA and C20:4-CoA, over saturated, C16:0-CoA, acyl species. ACBD6 plays a role in fatty acid metabolism and exhibits potential for use as a cellular marker for primitive progenitor cells related to hematopoiesis and vascular endothelium development. ACBD6 may be linked to Chronic Fatigue syndrome.

REFERENCES

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2. Soupene, E., et al. 2008. Characterization of an acyl-coenzyme A binding protein predominantly expressed in human primitive progenitor cells. J. Lipid Res. 49: 1103-1112.
3. Kimura, R., et al. 2008. Gene flow and natural selection in oceanic human populations inferred from genome-wide SNP typing. Mol. Biol. Evol. 25: 1750-1761.
4. Zeng, M., et al. 2008. Identification of target messenger RNA substrates for mouse RBMY. Mol. Hum. Reprod. 14: 331-336.
5. Saiki, T., et al. 2008. Identification of marker genes for differential diagnosis of chronic fatigue syndrome. Mol. Med. 14: 599-607.
6. Pappa, K.I., et al. 2009. Novel sources of fetal stem cells: where do they fit on the developmental continuum? Regen Med. 4: 423-433.
7. Hashimoto, M., et al. 2010. Secretory protein with RING finger domain (SPRING) specific to Trypanosoma cruzi is directed, as a ubiquitin ligase related protein, to the nucleus of host cells. Cell. Microbiol. 12: 19-30.

CHROMOSOMAL LOCATION

Genetic locus: ACBD6 (human) mapping to 1q25.2.

PRODUCT

ACBD6 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 ACBD6 shRNA Plasmid (h): sc-88066-SH and ACBD6 shRNA (h) Lentiviral Particles: sc-88066-V as alternate gene silencing products.

For independent verification of ACBD6 (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-88066A, sc-88066B and sc-88066C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

ACBD6 siRNA (h) is recommended for the inhibition of ACBD6 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 ACBD6 gene expression knockdown using RT-PCR Primer: ACBD6 (h)-PR: sc-88066-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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