SANTA CRUZ BIOTECHNOLOGY, INC.

ACBD5 siRNA (h): sc-90515

BACKGROUND

ACBD5 (acyl-CoA binding domain containing 5), also known as acyl-Coenzyme A binding domain containing 5, is a 534 amino acid single-pass membrane protein. Encoded by a gene that maps to human chromosome 10p12.1, ACBD5 exists as four alternatively spliced isoforms and is integral to cell membrane. ACBD5 consists of at least one coiled-coil domain as well as at least one transmembrane helical domain. ACBD5 also contains one ACB (acyl-CoA-binding) domain and participates in acyl-CoA and lipid binding. ACBD5 is up-regulated in wild-type neurospheres, free-floating shapes produced by neural stem cells *in vitro*. Localizing to peroxisomes, ACBD5 is potentially involved in peroxisomal functions. ACBD5 may play a role in brain growth and development, and may also be linked to cell differentiation and metabolism.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ACBD5 (human) mapping to 10p12.1.

PROTOCOLS

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

PRODUCT

ACBD5 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 ACBD5 shRNA Plasmid (h): sc-90515-SH and ACBD5 shRNA (h) Lentiviral Particles: sc-90515-V as alternate gene silencing products.

For independent verification of ACBD5 (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-90515A, sc-90515B and sc-90515C.

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

ACBD5 siRNA (h) is recommended for the inhibition of ACBD5 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 ACBD5 gene expression knockdown using RT-PCR Primer: ACBD5 (h)-PR: sc-90515-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.