SANTA CRUZ BIOTECHNOLOGY, INC.

AEBP2 siRNA (h): sc-95702

BACKGROUND

Adipocyte enhancer-binding protein 2 (AEBP2), also known as zinc finger protein AEBP2, is an 817 amino acid member of the AEBP2 C_2H_2-type zinc-finger protein family. Localized to the nucleus, AEBP2 acts as a DNA-binding transcriptional repressor of the adipose P2 (aP2) gene. The aP2 gene, which encodes the adipose fatty acid-binding protein, plays a critical role in triglyceride metabolism during adipocyte differentiation. The AE-1 region in the proximal promoter region of the aP2 gene functions as either a positive or negative regulatory element. C/EBPα binds to the AE-1 sequence and functions as a transcriptional activator of aP2, whereas other proteins, such as AEBP2, bind to the region and repress gene expression. AEBP2 contains three C_2H_2-type zinc fingers and it has been shown that not all of the zinc fingers are involved in DNA binding. Three isoforms of AEBP2 exist as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: AEBP2 (human) mapping to 12p12.3.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

AEBP2 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 AEBP2 shRNA Plasmid (h): sc-95702-SH and AEBP2 shRNA (h) Lentiviral Particles: sc-95702-V as alternate gene silencing products.

For independent verification of AEBP2 (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-95702A, sc-95702B and sc-95702C.

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

AEBP2 siRNA (h) is recommended for the inhibition of AEBP2 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 AEBP2 gene expression knockdown using RT-PCR Primer: AEBP2 (h)-PR: sc-95702-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.