SANTA CRUZ BIOTECHNOLOGY, INC.

ACAM siRNA (m): sc-140794

BACKGROUND

ACAM (adipocyte adhesion molecule), also known as ASAM or CLMP (coxsackie- and adenovirus receptor-like (CAR-) membrane protein), is a 373 amino acid tight junction single-pass type I membrane protein that belongs to the CTX (cortical thymocyte marker in *Xenopus*) family and is predominantly expressed in epithelial cells and in white adipose tissue. ACAM is upregulated in mature adipocytes and adipocyte tissue of obese individuals. Considered a novel cell-cell adhesion molecule, ACAM is regulated by TTP through the JNK signaling cascade and may be involved in junctional barrier function. ACAM contains a signal peptide, V-type (variable) and C2-type (constant) Ig domains, a single transmembrane segment and a cytoplasmic tail.

REFERENCES

1. Katoh, M. and Katoh, M. 2003. IGSF11 gene, frequently up-regulated in intestinal-type gastric cancer, encodes adhesion molecule homologous to CXADR, FLJ22415 and ESAM. Int. J. Oncol. 23: 525-531.
2. Raschperger, E., et al. 2004. CLMP, a novel member of the CTX family and a new component of epithelial tight junctions. J. Biol. Chem. 279: 796-804.
3. Coyne, C.B. and Bergelson, J.M. 2005. CAR: a virus receptor within the tight junction. Adv. Drug Deliv. Rev. 57: 869-882.
4. Eguchi, J., et al. 2005. Identification of adipocyte adhesion molecule (ACAM), a novel CTX gene family, implicated in adipocyte maturation and development of obesity. Biochem. J. 387: 343-353.
5. Raschperger, E., et al. 2006. The coxsackie- and adenovirus receptor (CAR) is an *in vivo* marker for epithelial tight junctions, with a potential role in regulating permeability and tissue homeostasis. Exp. Cell Res. 312: 1566-1580.

CHROMOSOMAL LOCATION

Genetic locus: Clmp (mouse) mapping to 9 A5.1.

PRODUCT

ACAM 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 ACAM shRNA Plasmid (m): sc-140794-SH and ACAM shRNA (m) Lentiviral Particles: sc-140794-V as alternate gene silencing products.

For independent verification of ACAM (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-140794A, sc-140794B and sc-140794C.

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

ACAM siRNA (m) is recommended for the inhibition of ACAM 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 ACAM gene expression knockdown using RT-PCR Primer: ACAM (m)-PR: sc-140794-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.