

AAMP siRNA (h): sc-94691

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. AAMP (angio-associated migratory cell protein) is a 434 amino acid immunoglobulin-like protein that contains eight WD repeats. Expressed in endothelial cells, cytotrophoblasts and blood vessels, AAMP is thought to have a heparin-sensitive role in cell adhesion and cell migration. AAMP is strongly expressed in poorly differentiated colon adenocarcinoma cells, suggesting a role for AAMP in tumor progression.

REFERENCES

1. Beckner, M.E., et al. 1995. Identification of a new immunoglobulin superfamily protein expressed in blood vessels with a heparin-binding consensus sequence. *Cancer Res.* 55: 2140-2149.
2. Beckner, M.E., et al. 1996. AAMP, a newly identified protein, shares a common epitope with α -actinin and a fast skeletal muscle fiber protein. *Exp. Cell Res.* 225: 306-314.
3. Beckner, M.E., et al. 1996. AAMP, a conserved protein with immunoglobulin and WD40 domains, regulates endothelial tube formation *in vitro*. *Lab. Invest.* 75: 97-107.
4. Beckner, M.E., et al. 1999. Angio-associated migratory cell protein is expressed as an extracellular protein by blood-vessel-associated mesenchymal cells. *Microvasc. Res.* 57: 347-352.
5. Beckner, M.E., et al. 2002. Extracellular angio-associated migratory cell protein plays a positive role in angiogenesis and is regulated by astrocytes in coculture. *Microvasc. Res.* 63: 259-269.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603488. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Vogt, F., et al. 2008. Blockade of angio-associated migratory cell protein inhibits smooth muscle cell migration and neointima formation in accelerated atherosclerosis. *J. Am. Coll. Cardiol.* 52: 302-311.
8. Holvoet, P., et al. 2008. Angio-associated migratory cell protein and smooth muscle cell migration in development of restenosis and atherosclerosis. *J. Am. Coll. Cardiol.* 52: 312-314.

CHROMOSOMAL LOCATION

Genetic locus: AAMP (human) mapping to 2q35.

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

AAMP siRNA (h) is a pool of 2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see AAMP shRNA Plasmid (h): sc-94691-SH and AAMP shRNA (h) Lentiviral Particles: sc-94691-V as alternate gene silencing products.

For independent verification of AAMP (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-94691A and sc-94691B.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

AAMP siRNA (h) is recommended for the inhibition of AAMP 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 μ M in 66 μ l. 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 AAMP gene expression knockdown using RT-PCR Primer: AAMP (h)-PR: sc-94691-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.