SANTA CRUZ BIOTECHNOLOGY, INC.

AMACO siRNA (h): sc-90411

BACKGROUND

AMACO (a domain-containing protein similar to matrilin and collagen), also known as VWFA2 (von Willebrand factor A domain containing 2) or CCSP-2 (colon cancer secreted protein 2), is a 755 amino acid protein that participates in identical protein binding and exists as three alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 10q25.3, AMACO contains three VWFA domains and two EGF-like domains, with the first domain consisting of a rare O-glucosylation and O-fucosylation consensus sequence. AMACO is a basement membrane associated protein that localizes subjacent to the stromal surface of basement membranes, but not within basement membranes. Although AMACO colocalizes with triple-helical domains of collagen VII, which contain anchoring fibrils that emerge from basal lamina, AMACO probably does not colocalize with collagen VII at anchoring plaques. Expression is typically absent in colon and other tissues; however, AMACO is induced approximately 78-fold in stage II, III and IV colon cancers, as well as in colon adenomas and colon cancer cell lines. AMACO exhibits potential for serological marker use related to early stage colon cancer.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: VWA2 (human) mapping to 10q25.3.

PRODUCT

AMACO 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 AMACO shRNA Plasmid (h): sc-90411-SH and AMACO shRNA (h) Lentiviral Particles: sc-90411-V as alternate gene silencing products.

For independent verification of AMACO (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-90411A, sc-90411B and sc-90411C.

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

AMACO siRNA (h) is recommended for the inhibition of AMACO 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 AMACO gene expression knockdown using RT-PCR Primer: AMACO (h)-PR: sc-90411-PR (20 µl, 416 bp). 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.