

AMACO (I-15): sc-162525

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 3 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-glycosylation 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

1. Sengle, G., et al. 2003. Identification and characterization of AMACO, a new member of the von Willebrand factor A-like domain protein superfamily with a regulated expression in the kidney. *J. Biol. Chem.* 278: 50240-50249.
2. Eller, E., et al. 2004. IDDM17: polymorphisms in the AMACO gene are associated with dominant protection against type 1A diabetes in a Bedouin Arab family. *Ann. N.Y. Acad. Sci.* 1037: 145-149.
3. Xin, B., et al. 2005. Colon cancer secreted protein-2 (CCSP-2), a novel candidate serological marker of colon neoplasia. *Oncogene* 24: 724-731.
4. Gao, W., et al. 2008. Extensive contacts between ADAMTS13 exosites and von Willebrand factor domain A2 contribute to substrate specificity. *Blood* 112: 1713-1719.
5. Gebauer, J.M., et al. 2008. O-glycosylation and O-fucosylation occur together in close proximity on the first epidermal growth factor repeat of AMACO (VWA2 protein). *J. Biol. Chem.* 283: 17846-17854.
6. Gebauer, J.M., et al. 2009. Mouse AMACO, a kidney and skin basement membrane associated molecule that mediates RGD-dependent cell attachment. *Matrix Biol.* 28: 456-462.

CHROMOSOMAL LOCATION

Genetic locus: VWA2 (human) mapping to 10q25.3; Vwa2 (mouse) mapping to 19 D2.

SOURCE

AMACO (I-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AMACO of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162525 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AMACO (I-15) is recommended for detection of AMACO of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AMACO (I-15) is also recommended for detection of AMACO in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AMACO siRNA (h): sc-90411, AMACO siRNA (m): sc-141037, AMACO shRNA Plasmid (h): sc-90411-SH, AMACO shRNA Plasmid (m): sc-141037-SH, AMACO shRNA (h) Lentiviral Particles: sc-90411-V and AMACO shRNA (m) Lentiviral Particles: sc-141037-V.

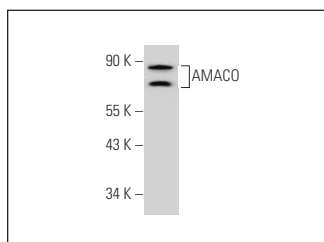
Molecular Weight of AMACO: 79 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



AMACO (I-15): sc-162525. Western blot analysis of AMACO expression in Jurkat whole cell lysate.

RESEARCH USE

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