

Angiomotin (C-18): sc-82491

BACKGROUND

Angiomotin, also known as AMOT, is a 1,084 amino acid protein that belongs to the motin family of angiostatin binding proteins. Members of the motin family contain conserved coiled-coil domains and PDZ binding motifs at their C-termini. Expressed in skeletal muscle and placenta, Angiomotin localizes to the cell surface at tight junctions and is believed to be involved in tight junction maintenance. Angiomotin binds to angiostatin and plays a vital role in angiogenesis, promoting tubule formation and growth factor-induced migration of endothelial cells. This suggests that Angiomotin may be an important player in tumor angiogenesis and could serve as a potential therapeutic target in cancer. Due to alternative splicing events, two Angiomotin isoforms exist, namely p130 and p80. The p130 isoform exhibits a different expression pattern from the p80 isoform and is able to interact with F-actin as well as induce actin fiber formation.

REFERENCES

1. Kikuno, R., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 197-205.
2. Troyanovsky, B., et al. 2001. Angiomotin: an angiostatin binding protein that regulates endothelial cell migration and tube formation. J. Cell Biol. 152: 1247-1254.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300410. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Wells, C.D., et al. 2006. A Rich1/Amot complex regulates the Cdc42 GTPase and apical-polarity proteins in epithelial cells. Cell 125: 535-548.
5. Ernkvist, M., et al. 2006. p130-angiomotin associates to actin and controls endothelial cell shape. FEBS J. 273: 2000-2011.
6. Huang, H., et al. 2007. Amotl2 is essential for cell movements in zebrafish embryo and regulates c-Src translocation. Development 134: 979-988.
7. Aase, K., et al. 2007. Angiomotin regulates endothelial cell migration during embryonic angiogenesis. Genes Dev. 21: 2055-2068.
8. Ernkvist, M., et al. 2008. Differential roles of p80- and p130-angiomotin in the switch between migration and stabilization of endothelial cells. Biochim. Biophys. Acta 1783: 429-437.

CHROMOSOMAL LOCATION

Genetic locus: AMOT (human) mapping to Xq23; Amot (mouse) mapping to X F2.

SOURCE

Angiomotin (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Angiomotin 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 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82491 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Angiomotin (C-18) is recommended for detection of Angiomotin 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family members Angiomotin-L1 or Angiomotin-L2.

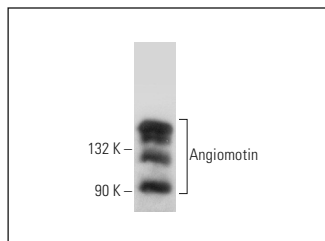
Angiomotin (C-18) is also recommended for detection of Angiomotin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Angiomotin siRNA (h): sc-72489, Angiomotin siRNA (m): sc-72490, Angiomotin shRNA Plasmid (h): sc-72489-SH, Angiomotin shRNA Plasmid (m): sc-72490-SH, Angiomotin shRNA (h) Lentiviral Particles: sc-72489-V and Angiomotin shRNA (m) Lentiviral Particles: sc-72490-V.

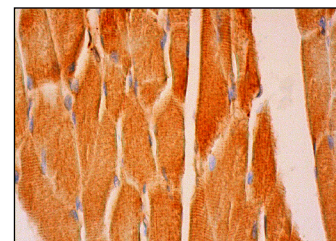
Molecular Weight of Angiomotin isoforms: 80/130 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

DATA



Angiomotin (C-18): sc-82491. Western blot analysis of Angiomotin expression in 293T whole cell lysate.



Angiomotin (C-18): sc-82491. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

1. Wang, C., et al. 2012. The Nedd4-like ubiquitin E3 ligases target angiomotin/p130 to ubiquitin-dependent degradation. Biochem. J. 444: 279-289.
2. Leung, C.Y. and Zernicka-Goetz, M. 2013. Angiomotin prevents pluripotent lineage differentiation in mouse embryos via Hippo pathway-dependent and -independent mechanisms. Nat. Commun. 4: 2251.

RESEARCH USE

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