SANTA CRUZ BIOTECHNOLOGY, INC.

Angiomotin (G-12): sc-515262

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: AMOT (human) mapping to Xq23.

SOURCE

Angiomotin (G-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 825-847 within an internal region of Angiomotin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515262 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

Angiomotin (G-12) is recommended for detection of Angiomotin of human origin by Western Blotting (starting dilution 1:100, 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).

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

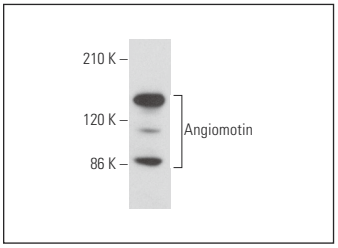
Molecular Weight of Angiomotin isoforms: 80/130 kDa.

Positive Controls: HEK293T whole cell lysate: sc-45137.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Angiomotin (G-12): sc-515262. Western blot analysis of Angiomotin expression in HEK293T whole cell lysate.

SELECT PRODUCT CITATIONS

1. Rojek, K.O., et al. 2019. Amot and Yap1 regulate neuronal dendritic tree complexity and locomotor coordination in mice. PLoS Biol. 17: e3000253.
2. Tan, B., et al. 2020. The mammalian crumbs complex defines a distinct polarity domain apical of epithelial tight junctions. Curr. Biol. 30: 2791-2804.e6.

CONJUGATES

See **Angiomotin (B-4): sc-166924** for Angiomotin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.