SANTA CRUZ BIOTECHNOLOGY, INC.

Angiomotin (B-4): sc-166924

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.

CHROMOSOMAL LOCATION

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

SOURCE

Angiomotin (B-4) is a mouse monoclonal antibody raised against amino acids 174-279 mapping within an internal region of Angiomotin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Angiomotin (B-4) is available conjugated to agarose (sc-166924 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166924 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166924 PE), fluorescein (sc-166924 FITC), Alexa Fluor® 488 (sc-166924 AF488), Alexa Fluor® 546 (sc-166924 AF546), Alexa Fluor® 594 (sc-166924 AF594) or Alexa Fluor® 647 (sc-166924 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166924 AF680) or Alexa Fluor® 790 (sc-166924 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Angiomotin (B-4) is recommended for detection of Angiomotin of mouse, rat and 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 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.

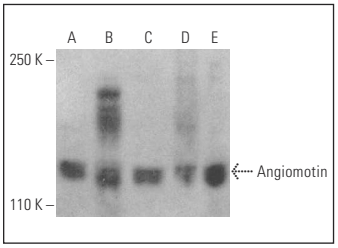
Molecular Weight of Angiomotin isoforms: 80/130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293T whole cell lysate: sc-45137 or MCF7 whole cell lysate: sc-2206.

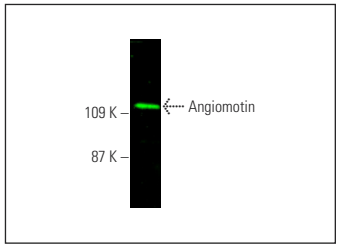
STORAGE

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

DATA



Angiomotin (B-4) HRP: sc-166924 HRP. Direct western blot analysis of Angiomotin expression in MCF7 (**A**), 293T (**B**), F9 (**C**), HeLa (**D**) and CCRF-CEM (**E**) whole cell lysates.



Angiomotin (B-4): sc-166924. Near-infrared western blot analysis of Angiomotin expression in HEK293T whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Mana-Capelli, S., et al. 2014. Angiomotins link F-Actin architecture to Hippo pathway signaling. Mol. Biol. Cell 25: 1676-1685.
2. Liu, Y., et al. 2018. AMOT is required for YAP function in high glucose induced liver malignancy. Biochem. Biophys. Res. Commun. 495: 1555-1561.
3. Yang, J., et al. 2019. Angiomotin-p130 inhibits β-catenin stability by competing with Axin for binding to tankyrase in breast cancer. Cell Death Dis. 10: 179.
4. Waaler, J., et al. 2020. Tankyrase inhibition sensitizes melanoma to PD-1 immune checkpoint blockade in syngeneic mouse models. Commun. Biol. 3: 196.
5. Kierulf-Vieira, K.S., et al. 2020. A small-molecule tankyrase inhibitor reduces glioma stem cell proliferation and sphere formation. Cancers 12: 1630.
6. Liu, M., et al. 2020. Macrophage K63-linked ubiquitination of YAP promotes its nuclear localization and exacerbates atherosclerosis. Cell Rep. 32: 107990.
7. Matarrese, P., et al. 2021. Physical interaction between HPV16E7 and the Actin-binding protein Gelsolin regulates epithelial-mesenchymal transition via Hippo-YAP axis. Cancers 13: 353.
8. Mygland, L., et al. 2021. Identification of response signatures for tankyrase inhibitor treatment in tumor cell lines. iScience 24: 102807.
9. Wang, Y., et al. 2021. Stabilization of Motin family proteins in NF2-deficient cells prevents full activation of YAP/TAZ and rapid tumorigenesis. Cell Rep. 36: 109596.
10. Wang, Y., et al. 2023. Proteolytic activation of angiomotin by DDI2 promotes angiogenesis. EMBO J. 42: e112900.

RESEARCH USE

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