

## AIP5 (5AA): sc-100679



The Power to Question

## BACKGROUND

Atrophin interacting proteins (AIPs) bind to atrophin-1 in the vicinity of the polyglutamine tract. The WW domain consists of 35-40 amino acids and is characterized by four well conserved aromatic residues, two of which are tryptophan. All five AIPs contain multiple WW domains and can be divided into two distinct classes. AIP1 and AIP3 (WWP3) are MAGUK-like multidomain proteins containing a guanylate kinase-like region, two WW domains and multiple PDZ domains. AIP2 (WWP2), AIP4 (itchy) and AIP5 (WWP1) are highly homologous, each having four WW domains and a HECT domain characteristic of ubiquitin ligases. These interactors are similar to isolated Huntingtin-interacting proteins, suggesting commonality of function between two families of proteins responsible for similar diseases.

## REFERENCES

1. Bork, P. and Sudol, M. 1994. The WW domain: a signalling site in dystrophin? *Trends Biochem. Sci.* 19: 531-533.
2. Andre, B. and Springael, J.Y. 1994. WWP, a new amino acid motif present in single or multiple copies in various proteins including dystrophin and the SH3-binding Yes-associated protein YAP65. *Biochem. Biophys. Res. Commun.* 205: 1201-1205.

## CHROMOSOMAL LOCATION

Genetic locus: WWP1 (human) mapping to 8q21.3; Wwp1 (mouse) mapping to 4 A3.

## SOURCE

AIP5 (5AA) is a mouse monoclonal antibody raised against recombinant AIP5 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

AIP5 (5AA) is recommended for detection of AIP5 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).

Suitable for use as control antibody for AIP5 siRNA (h): sc-40366, AIP5 siRNA (m): sc-40367, AIP5 shRNA Plasmid (h): sc-40366-SH, AIP5 shRNA Plasmid (m): sc-40367-SH, AIP5 shRNA (h) Lentiviral Particles: sc-40366-V and AIP5 shRNA (m) Lentiviral Particles: sc-40367-V.

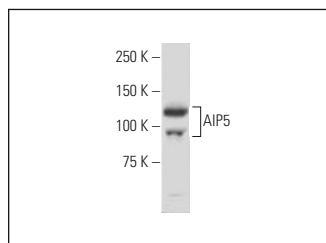
Molecular Weight of AIP5: 105 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, K-562 whole cell lysate: sc-2203 or SJRH30 cell lysate: sc-2287.

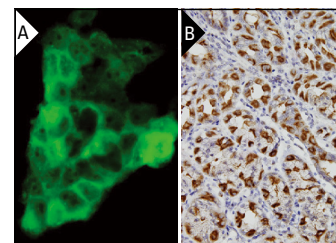
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



AIP5 (5AA): sc-100679. Western blot analysis of AIP5 expression in A-431 whole cell lysate.



AIP5 (5AA): sc-100679. Immunofluorescence staining of paraformaldehyde-fixed A-431 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human stomach tissue showing cytoplasmic localization (B).

## SELECT PRODUCT CITATIONS

1. Lin, X.W., et al. 2013. WW domain containing E3 ubiquitin protein ligase 1 (WWP1) negatively regulates TLR4-mediated TNF-α and IL-6 production by proteasomal degradation of TNF receptor associated factor 6 (TRAF6). *PLoS ONE* 8: e67633.
2. Ma, L., et al. 2019. miR-129-5p and -3p co-target WWP1 to suppress gastric cancer proliferation and migration. *J. Cell. Biochem.* 120: 7527-7538.
3. Ziegler, C.M., et al. 2019. NEDD4 family ubiquitin ligases associate with LCMV Z's PPXY domain and are required for virus budding, but not via direct ubiquitination of Z. *PLoS Pathog.* 15: e1008100.
4. Liu, S., et al. 2023. 14-3-3σ-NEDD4L axis promotes ubiquitination and degradation of HIF-1α in colorectal cancer. *Cell Rep.* 42: 112870.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.