

# AIP2 (A-5): sc-166239

## 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 4 well conserved aromatic residues, 2 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. André, 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.
3. Hofmann, K. and Bucher, P. 1995. The rsp5-domain is shared by proteins of diverse functions. *FEBS Lett.* 358: 153-157.
4. Pirozzi, G., McConnell, S.J., Uveges, A.J., Carter, J.M., Sparks, A.B., Kay, B.K. and Fowlkes, D.M. 1997. Identification of novel human WW domain-containing proteins by cloning of ligand targets. *J. Biol. Chem.* 272: 14611-14616.
5. Wood, J.D., Yuan, J., Margolis, R.L., Colomer, V., Duan, K., Kushi, J., Kaminsky, Z., Kleiderlein, J.J., Sharp, A.H. and Ross, C.A. 1998. Atrophin-1, the DRPLA gene product, interacts with two families of WW domain-containing proteins. *Mol. Cell. Neurosci.* 11: 149-160.
6. Perry, W.L., Hustad, C.M., Swing, D.A., O'Sullivan, T.N., Jenkins, N.A. and Copeland, N.G. 1998. The itchy locus encodes a novel ubiquitin protein ligase that is disrupted in a<sup>18H</sup> mice. *Nature Genet.* 18: 143-146.

## CHROMOSOMAL LOCATION

Genetic locus: WWP2 (human) mapping to 16q22.1.

## SOURCE

AIP2 (A-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of AIP2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

AIP2 (A-5) is recommended for detection of AIP2 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 AIP2 siRNA (h): sc-40362, AIP2 shRNA Plasmid (h): sc-40362-SH and AIP2 shRNA (h) Lentiviral Particles: sc-40362-V.

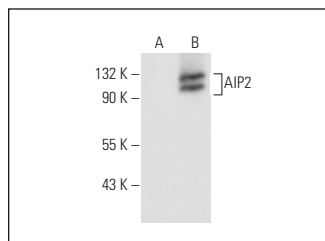
Molecular Weight of AIP2: 99-110 kDa.

Positive Controls: AIP2 (h2): 293T Lysate: sc-116898.

## 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



AIP2 (A-5): sc-166239. Western blot analysis of AIP2 expression in non-transfected: sc-117752 (A) and human AIP2 transfected: sc-116898 (B) 293T whole cell lysates.

## 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.