

AIP4 (W-18): sc-11887

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. 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.
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., et al. 1997. Identification of novel human WW domain-containing proteins by cloning of ligand targets. *J. Biol. Chem.* 272: 14611-14616.
5. Perry, W.L., et al. 1998. The itchy locus encodes a novel ubiquitin protein ligase that is disrupted in a18H mice. *Nat. Genet.* 18: 143-146.
6. Wood, J.D., et al. 1998. Atrophin-1, the DRPLA gene product, interacts with two families of WW domain-containing proteins. *Mol. Cell. Neurosci.* 11: 149-160.

CHROMOSOMAL LOCATION

Genetic locus: ITCH (human) mapping to 20q11.22.

SOURCE

AIP4 (W-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AIP4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11887 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

AIP4 (W-18) is recommended for detection of AIP4 of 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).

AIP4 (W-18) is also recommended for detection of AIP4 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for AIP4 siRNA (h: sc-40364, AIP4 shRNA Plasmid (h): sc-40364-SH and AIP4 shRNA (h) Lentiviral Particles: sc-40364-V.

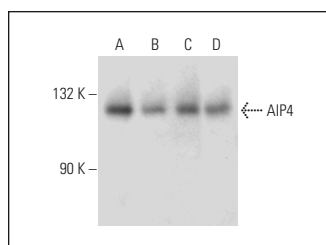
Molecular Weight of AIP4: 106 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

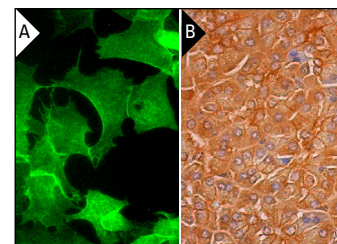
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



AIP4 (W-18): sc-11887. Western blot analysis of AIP4 expression in Caki-1 (A), Hep G2 (B), Jurkat (C) and U-251 MG (D) whole cell lysates.



AIP4 (W-18): sc-11887. Immunofluorescence staining of formalin-fixed HepG2 cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and membrane staining of exocrine glandular cells (B).

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.