

AIP4 (G-11): sc-28367

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.

CHROMOSOMAL LOCATION

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

SOURCE

AIP4 (G-11) is a mouse monoclonal antibody raised against amino acids 101-210 of AIP4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AIP4 (G-11) is available conjugated to agarose (sc-28367 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28367 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28367 PE), fluorescein (sc-28367 FITC), Alexa Fluor[®] 488 (sc-28367 AF488), Alexa Fluor[®] 546 (sc-28367 AF546), Alexa Fluor[®] 594 (sc-28367 AF594) or Alexa Fluor[®] 647 (sc-28367 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-28367 AF680) or Alexa Fluor[®] 790 (sc-28367 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

AIP4 (G-11) is recommended for detection of AIP4 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 AIP4 siRNA (h, m): sc-40364, AIP4 shRNA Plasmid (h, m): sc-40364-SH and AIP4 shRNA (h, m) Lentiviral Particles: sc-40364-V.

Molecular Weight of AIP4: 106 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, Caki-1 cell lysate: sc-2224 or Hep G2 cell lysate: sc-2227.

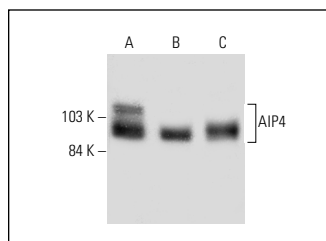
STORAGE

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

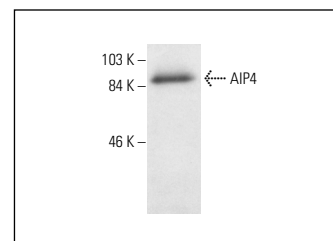
RESEARCH USE

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

DATA



AIP4 (G-11): sc-28367. Western blot analysis of AIP4 expression in NAMALWA (A), Hep G2 (B) and Caki-1 (C) whole cell lysates.



AIP4 (G-11): sc-28367. Western blot analysis of AIP4 expression in SCC-4 whole cell lysate.

SELECT PRODUCT CITATIONS

- Bhandari, D., et al. 2007. Arrestin-2 interacts with the ubiquitin-protein isopeptide ligase atrophin-interacting protein 4 and mediates endosomal sorting of the chemokine receptor CXCR4. *J. Biol. Chem.* 282: 36971-36979.
- Bhandari, D., et al. 2009. The E3 ubiquitin ligase atrophin interacting protein 4 binds directly to the chemokine receptor CXCR4 via a novel WW domain-mediated interaction. *Mol. Biol. Cell* 20: 1324-1339.
- Zhang, P., et al. 2010. The ubiquitin ligase itch regulates apoptosis by targeting thioredoxin-interacting protein for ubiquitin-dependent degradation. *J. Biol. Chem.* 285: 8869-8879.
- Wang, C., et al. 2012. The Nedd4-like ubiquitin E3 ligases target angiotensin/p130 to ubiquitin-dependent degradation. *Biochem. J.* 444: 279-289.
- Adler, J.J., et al. 2013. Amot130 adapts atrophin-1 interacting protein 4 to inhibit yes-associated protein signaling and cell growth. *J. Biol. Chem.* 288: 15181-15193.
- Gao, K., et al. 2015. The E3 ubiquitin ligase Itch and Yap1 have antagonistic roles in the regulation of ASPP2 protein stability. *FEBS Lett.* 589: 94-101.
- Dergai, O., et al. 2018. Ubiquitin-ligase AIP4 controls differential ubiquitination and stability of isoforms of the scaffold protein ITS1. *FEBS Lett.* 592: 2259-2267.
- Deng, J., et al. 2019. N-acetylcysteine decreases malignant characteristics of glioblastoma cells by inhibiting Notch2 signaling. *J. Exp. Clin. Cancer Res.* 38: 2.
- Soh, T.K., et al. 2020. Temporal proteomic analysis of herpes simplex virus 1 infection reveals cell-surface remodeling via pUL56-mediated GOPC degradation. *Cell Rep.* 33: 108235.

PROTOCOLS

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