

# AIP1 (T-18): sc-79201

## BACKGROUND

AIP1 (ASK-interacting protein 1), also known as DAB2IP (DAB2 interacting protein), is a 1,189 amino acid protein that localizes to both the membrane and the cytoplasm and contains one Ras GAP domain, one PH domain and one C2 domain. Expressed at low levels in prostate tissue, AIP1 functions as a Ras GTPase-activating protein that interacts with ASK 1 and, via this interaction, disrupts the association of ASK 1 with an inhibitory 14-3-3 complex, thereby allowing free ASK 1 to function within the cell. AIP1 exists as multiple alternatively spliced isoforms and is downregulated in prostate cancer tissue, suggesting a role in tumor suppression. Chromosomal aberrations in the gene encoding AIP1 are associated with acute myeloid leukemia (AML), implicating a role for AIP1 fusion proteins in tumorigenesis.

## REFERENCES

1. Chen, H., Pong, R.C., Wang, Z. and Hsieh, J.T. 2002. Differential regulation of the human gene DAB2IP in normal and malignant prostatic epithelia: cloning and characterization. *Genomics* 79: 573-581.
2. Wang, Z., Tseng, C.P., Pong, R.C., Chen, H., McConnell, J.D., Navone, N. and Hsieh, J.T. 2002. The mechanism of growth-inhibitory effect of DOC-2/DAB2 in prostate cancer. Characterization of a novel GTPase-activating protein associated with N-terminal domain of DOC-2/DAB2. *J. Biol. Chem.* 277: 12622-12631.
3. Chen, H., Toyooka, S., Gazdar, A.F. and Hsieh, J.T. 2003. Epigenetic regulation of a novel tumor suppressor gene (hDAB2IP) in prostate cancer cell lines. *J. Biol. Chem.* 278: 3121-3130.
4. Zhang, R., He, X., Liu, W., Lu, M., Hsieh, J.T. and Min, W. 2003. AIP1 mediates TNF $\alpha$ -induced ASK 1 activation by facilitating dissociation of ASK 1 from its inhibitor 14-3-3. *J. Clin. Invest.* 111: 1933-1943.
5. Zhang, H., Zhang, R., Luo, Y., D'Alessio, A., Pober, J.S. and Min, W. 2004. AIP1/DAB2IP, a novel member of the Ras GAP family, transduces TRAF2-induced ASK 1-JNK activation. *J. Biol. Chem.* 279: 44955-44965.

## CHROMOSOMAL LOCATION

Genetic locus: DAB2IP (human) mapping to 9q33.2; Dab2ip (mouse) mapping to 2 B.

## SOURCE

AIP1 (T-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AIP1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79201 P, (100  $\mu$ g 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.

## APPLICATIONS

AIP1 (T-18) is recommended for detection of AIP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 AIP1 siRNA (h): sc-72468, AIP1 siRNA (m): sc-72469, AIP1 shRNA Plasmid (h): sc-72468-SH, AIP1 shRNA Plasmid (m): sc-72469-SH, AIP1 shRNA (h) Lentiviral Particles: sc-72468-V and AIP1 shRNA (m) Lentiviral Particles: sc-72469-V.

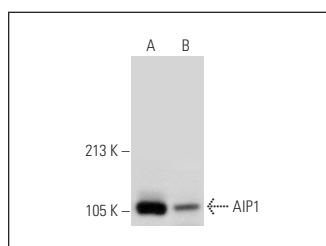
Molecular Weight of AIP1: 110 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## 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.

## DATA



AIP1 (T-18): sc-79201. Western blot analysis of AIP1 expression in HeLa (A) and Hep G2 (B) whole cell lysates.

## RESEARCH USE

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



Try **AIP1 (F-3): sc-365921** or **AIP1 (E-8): sc-514766**, our highly recommended monoclonal alternatives to AIP1 (T-18).