

WIPI-1 (F-6): sc-376205

BACKGROUND

WIPI-1 (WD repeat domain, phosphoinositide interacting-1), also known as WIPI1, ATG18 or WIPI49, is a 446 amino acid protein that localizes to cytoplasmic vesicles, endosomes, clathrin-coated vesicles and the *trans*-Golgi network. Ubiquitously expressed with highest expression in heart, testis, placenta, pancreas and skeletal muscle, WIPI-1 is thought to play a role in autophagy and may regulate protein trafficking in certain recycling pathways. In addition, WIPI-1 interacts with androgen and estrogen receptors (ARs and ERs, respectively) and, through this interaction, may modify receptor function. WIPI-1 contains three WD repeats and has a 7-bladed propeller structure with a conserved motif that facilitates its interaction with other proteins. WIPI-1 is expressed as two isoforms, designated α and β , and its expression is upregulated in a variety of tumors, suggesting a role in carcinogenesis.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609224. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Proikas-Cezanne, T., et al. 2004. WIPI-1 α (WIPI49), a member of the novel 7-bladed WIPI protein family, is aberrantly expressed in human cancer and is linked to starvation-induced autophagy. *Oncogene* 23: 9314-9325.
3. Jeffries, T.R., et al. 2004. PtdIns-specific MPR pathway association of a novel WD40 repeat protein, WIPI49. *Mol. Biol. Cell* 15: 2652-2663.
4. Wojnarowicz, P.M., et al. 2007. Construction of a chromosome 17 transcriptome in serous ovarian cancer identifies differentially expressed genes. *Int. J. Gynecol. Cancer* 18: 963-975.
5. Proikas-Cezanne, T., et al. 2007. Human WIPI-1 puncta-formation: a novel assay to assess mammalian autophagy. *FEBS Lett.* 581: 3396-3404.

CHROMOSOMAL LOCATION

Genetic locus: WIPI1 (human) mapping to 17q24.2; Wipi1 (mouse) mapping to 11 E1.

SOURCE

WIPI-1 (F-6) is a mouse monoclonal antibody raised against amino acids 352-446 mapping at the C-terminus of WIPI-1 of human origin.

PRODUCT

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

WIPI-1 (F-6) is available conjugated to agarose (sc-376205 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376205 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376205 PE), fluorescein (sc-376205 FITC), Alexa Fluor® 488 (sc-376205 AF488), Alexa Fluor® 546 (sc-376205 AF546), Alexa Fluor® 594 (sc-376205 AF594) or Alexa Fluor® 647 (sc-376205 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376205 AF680) or Alexa Fluor® 790 (sc-376205 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

WIPI-1 (F-6) is recommended for detection of WIPI-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 WIPI-1 siRNA (h): sc-72210, WIPI-1 siRNA (m): sc-72211, WIPI-1 shRNA Plasmid (h): sc-72210-SH, WIPI-1 shRNA Plasmid (m): sc-72211-SH, WIPI-1 shRNA (h) Lentiviral Particles: sc-72210-V and WIPI-1 shRNA (m) Lentiviral Particles: sc-72211-V.

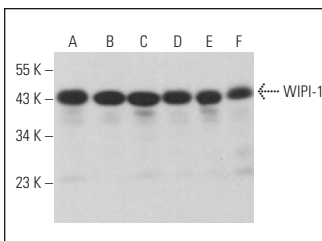
Molecular Weight of WIPI-1: 49 kDa.

Positive Controls: WIPI-1 (h): 293T Lysate: sc-115851, C6 whole cell lysate: sc-364373 or A-375 cell lysate: sc-3811.

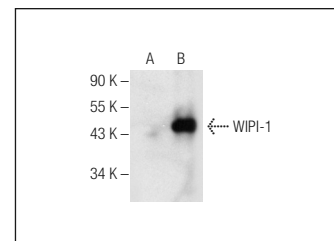
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



WIPI-1 (F-6): sc-376205. Western blot analysis of WIPI-1 expression in C6 (A), A-375 (B), RAW 264.7 (C), JAR (D), NIH/3T3 (E) and SK-BR-3 (F) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.



WIPI-1 (F-6): sc-376205. Western blot analysis of WIPI-1 expression in non-transfected: sc-117752 (A) and human WIPI-1 transfected: sc-115851 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, X., et al. 2017. Nucleus-translocated ACSS2 promotes gene transcription for lysosomal biogenesis and autophagy. *Mol. Cell* 66: 684-697.e9.

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.