

# WIPI-1 (D-19): sc-83063

## 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  $\alpha$  and  $\beta$ , 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 $\alpha$  (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.
6. Seelan, R.S., et al. 2008. Deciphering the lithium transcriptome: microarray profiling of lithium-modulated gene expression in human neuronal cells. *Neuroscience* 151: 1184-1197.

## CHROMOSOMAL LOCATION

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

## SOURCE

WIPI-1 (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WIPI-1 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-83063 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

WIPI-1 (D-19) is recommended for detection of WIPI-1 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); non cross-reactive with other WIPI family members.

WIPI-1 (D-19) is also recommended for detection of WIPI-1 in additional species, including equine, canine, bovine and porcine.

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.

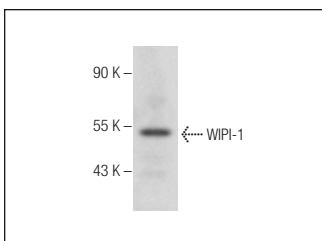
Molecular Weight of WIPI-1: 49 kDa.

Positive Controls: PC-12 cell lysate: sc-2250 or JAR cell lysate: sc-2276.

## 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



WIPI-1 (D-19): sc-83063. Western blot analysis of WIPI-1 expression in JAR whole cell lysate.

## STORAGE

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



Try **WIPI-1 (F-6): sc-376205** or **WIPI-1 (38-W): sc-100901**, our highly recommended monoclonal alternatives to WIPI-1 (D-19).