

WIPI-1 (h): 293T Lysate: sc-115851

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., Waddell, S., Gaugel, A., Frickey, T., Lupas, A. and Nordheim, A. 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., Dove, S.K., Michell, R.H. and Parker, P.J. 2004. PtdIns-specific MPR pathway association of a novel WD40 repeat protein, WIPI49. *Mol. Biol. Cell* 15: 2652-2663.
4. Wojnarowicz, P.M., Breznan, A., Arcand, S.L., Filali-Mouhim, A., Provencher, D.M., Mes-Masson, A.M. and Tonin, P.N. 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., Ruckerbauer, S., Stierhof, Y.D., Berg, C. and Nordheim, A. 2007. Human WIPI-1 puncta-formation: a novel assay to assess mammalian autophagy. *FEBS Lett.* 581: 3396-3404.
6. Seelan, R.S., Khalyfa, A., Lakshmanan, J., Casanova, M.F. and Parthasarathy, R.N. 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.

PRODUCT

WIPI-1 (h): 293T Lysate represents a lysate of human WIPI-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

WIPI-1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive WIPI-1 antibodies. Recommended use: 10-20 μ l per lane.

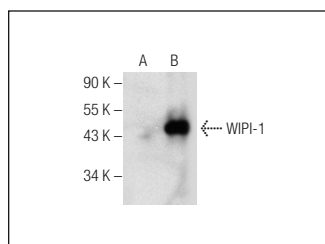
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

WIPI-1 (F-6): sc-376205 is recommended as a positive control antibody for Western Blot analysis of enhanced human WIPI-1 expression in WIPI-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

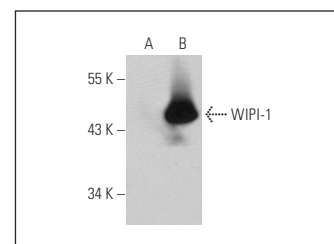
RECOMMENDED SUPPORT REAGENTS

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.

DATA



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.



WIPI-1 (38-W): sc-100901. 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.

RESEARCH USE

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

PROTOCOLS

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