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WIPI2 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP13314a

Specification

WIPI2 Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q9Y4P8

WIPI2 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 26100

Other Names
WD repeat domain phosphoinositide-interacting protein 2, WIPI-2, WIPI49-like protein 2, WIPI2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13314a was selected from the N-term region of WIPI2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

WIPI2 Antibody (N-term) Blocking peptide - Protein Information

Name WIPI2 (HGNC:32225)

Function
Component of the autophagy machinery that controls the major intracellular degradation process by which cytoplasmic materials are packaged into autophagosomes and delivered to lysosomes for degradation (PubMed:20505359, PubMed:28561066). Involved in an early step of the formation of preautophagosomal structures (PubMed:20505359, PubMed:28561066). Binds and is activated by phosphatidylinositol 3- phosphate (PtdIns3P) forming on membranes of the endoplasmic reticulum upon activation of the upstream ULK1 and PI3 kinases (PubMed:28561066). Mediates ER-isolation membranes contacts by interacting with the ULK1:RB1CC1 complex and PtdIns3P (PubMed:28890335). Once

activated, WIPI2 recruits at phagophore assembly sites the ATG12-ATG5-ATG16L1 complex that directly controls the elongation of the nascent autophagosomal membrane (PubMed:20505359, PubMed:28561066).

Cellular Location
Preautophagosomal structure membrane; Peripheral membrane protein; Cytoplasmic side. Note=Localizes to omegasomes membranes which are endoplasmic reticulum connected structures at the origin of preautophagosomal structures. Enriched at preautophagosomal structure membranes in response to PtdIns3P.

Tissue Location
Ubiquitously expressed (at protein level). Highly expressed in heart, skeletal muscle and pancreas. Expression is down- regulated in pancreatic and in kidney tumors

WIPI2 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

WIPI2 Antibody (N-term) Blocking peptide - Images

WIPI2 Antibody (N-term) Blocking peptide - Background

WD40 repeat proteins are key components of many essentialbiologic functions. They regulate the assembly of multiproteincomplexes by presenting a beta-propeller platform for simultaneousand reversible protein-protein interactions. Members of the WIPIsubfamily of WD40 repeat proteins, such as WIPI2, have a 7-bladedpropeller structure and contain a conserved motif for interactionwith phospholipids (Proikas-Cezanne et al., 2004 [PubMed15602573]).

WIPI2 Antibody (N-term) Blocking peptide - References

Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)Proikas-Cezanne, T., et al. Oncogene 23(58):9314-9325(2004)Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000)