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WIPI2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9559b

Specification

WIPI2 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q9Y4P8
Other Accession	Q6AY57, Q80W47, Q5ZHN3
Reactivity	**Human, Mouse**
Predicted	**Chicken, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**49408**
Antigen Region	**426-454**

WIPI2 Antibody (C-term) - Additional Information

Gene ID 26100

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

Target/Specificity
This WIPI2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 426-454 amino acids from the C-terminal region of human WIPI2.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
WIPI2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

WIPI2 Antibody (C-term) - 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.

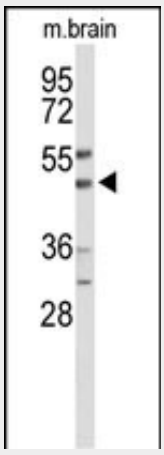
Tissue Location
Ubiquitously expressed (at protein level). Highly expressed in heart, skeletal muscle and pancreas. Expression is down- regulated in pancreatic and in kidney tumors

WIPI2 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

WIPI2 Antibody (C-term) - Images



Western blot analysis of WIPI2 Antibody (C-term) (Cat. #AP9559b) in mouse brain tissue lysates (35ug/lane). WIPI2 (arrow) was detected using the purified Pab.

WIPI2 Antibody (C-term) - Background

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WD40 repeat proteins are key components of many essential biologic functions. They regulate the assembly of multiprotein complexes by presenting a beta-propeller platform for simultaneous and reversible protein-protein interactions. Members of the WIPI subfamily of WD40 repeat proteins, such as WIPI2, have a 7-bladed propeller structure and contain a conserved motif for interaction with phospholipids (Proikas-Cezanne et al., 2004 [PubMed 15602573]).

WIPI2 Antibody (C-term) - References

Proikas-Cezanne, T., et al. Oncogene 23(58):9314-9325(2004)
Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000)

WIPI2 Antibody (C-term) - Citations

- Automated Detection of Autophagy Response Using Single Cell-Based Microscopy Assays.
- WIPI3 and WIPI4 β-propellers are scaffolds for LKB1-AMPK-TSC signalling circuits in the control of autophagy.