

**WIPI2 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13314a****Specification**

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**WIPI2 Antibody (N-term) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">Q9Y4P8</a>
Other Accession	<a href="#">NP_001028690.1</a> , <a href="#">NP_057087.2</a> , <a href="#">NP_001028691.1</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	4-32

**WIPI2 Antibody (N-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 4-32 amino acids from the N-terminal region of human WIPI2.

**Dilution**

IHC-P~~1:10~50

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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**WIPI2 Antibody (N-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

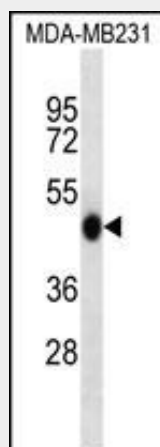
Ubiquitously expressed (at protein level). Highly expressed in heart, skeletal muscle and pancreas. Expression is down- regulated in pancreatic and in kidney tumors

#### WIPI2 Antibody (N-term) - Protocols

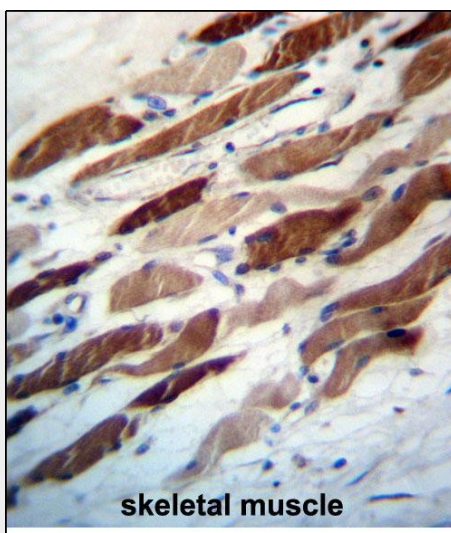
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### WIPI2 Antibody (N-term) - Images



WIPI2 Antibody (N-term) (Cat. #AP13314a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane). This demonstrates the WIPI2 antibody detected the WIPI2 protein (arrow).



WIPI2 Antibody (N-term) (Cat. #AP13314a) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of WIPI2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **WIPI2 Antibody (N-term) - Background**

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 (N-term) - 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)

#### **WIPI2 Antibody (N-term) - Citations**

- [Defects of Vps15 in skeletal muscles lead to autophagic vacuolar myopathy and lysosomal disease.](#)