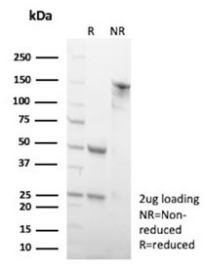
WIPI2 Antibody / Autophagosome Formation Protein Antibody [clone 2A2] (V8975)

Catalog No.	Formulation	Size
V8975-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8975-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8975SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	2A2
Purity	Protein A/G affinity
UniProt	Q9Y4P8
Applications	ELISA (order BSA-free format for coating) Flow cytometry: 1-2ug/million cells
Limitations	This WIPI2 Antibody / Autophagosome Formation Protein Antibody is available for research use only.



WIPI2 Antibody SDS-PAGE Integrity Analysis. SDS-PAGE analysis of purified, BSA-free WIPI2 Antibody / Autophagosome Formation Protein Antibody clone 2A2 demonstrates the expected immunoglobulin banding profile under reduced and non-reduced conditions, supporting antibody integrity and preparation purity. Reduced conditions (R) show characteristic heavy and light chain migration patterns, while non-reduced conditions (NR) demonstrate intact immunoglobulin species. This widely utilized clone 2A2 antibody has been reported in published studies involving autophagosome formation, phagophore assembly, and autophagy-associated signaling pathways.

Description

WD repeat domain phosphoinositide-interacting protein 2 (WIPI2) is a phosphatidylinositol 3-phosphate-binding regulatory

protein involved in autophagosome formation, phagophore expansion, autophagy initiation, and intracellular membrane-associated signaling pathways. WIPI2 functions as a core component of early autophagy machinery through recruitment of ATG16L1 and regulation of LC3 lipidation during autophagosome biogenesis. WIPI2 Antibody is useful for investigations involving autophagy signaling, intracellular vesicle trafficking, phagophore assembly, and stress-response-associated cellular regulation.

WIPI2 antibody, also referred to as WD repeat domain phosphoinositide-interacting protein 2 antibody, ATG18 homolog antibody, and Autophagosome formation protein antibody in the literature, recognizes a cytoplasmic phosphoinositide-binding protein encoded on chromosome 7p22.2. WIPI2 localizes predominantly to omegasomes, phagophore membranes, and autophagosome-associated intracellular compartments where it participates in phosphatidylinositol 3-phosphate-dependent recruitment of autophagy-associated protein complexes. WIPI2 expression and localization are strongly associated with nutrient sensing, cellular stress signaling, lysosomal regulation, and autophagic flux-associated pathways.

WIPI2 Antibody / Autophagosome Formation Protein Antibody (clone 2A2) is uniquely positioned for studies involving autophagy initiation and intracellular membrane-associated signaling biology. Clone 2A2 is a widely recognized mouse monoclonal antibody that has been utilized in published studies involving autophagy-associated signaling pathways, LC3 lipidation regulation, phagophore assembly, and intracellular vesicle organization. Literature-associated applications for clone 2A2 include immunofluorescence, intracellular flow cytometry, western blotting, and tissue-based autophagy investigations. The established publication history of clone 2A2 supports its utility in investigations involving autophagosome biogenesis and stress-response-associated signaling regulation.

WIPI2 functions upstream of LC3-associated autophagosome maturation through recruitment of ATG16L1-containing complexes to phosphatidylinositol 3-phosphate-enriched membrane structures. Through these interactions, WIPI2 contributes directly to autophagosome membrane elongation, cargo sequestration, intracellular quality control pathways, and cellular adaptation to nutrient deprivation or metabolic stress. Altered WIPI2-associated signaling has been linked to neurodegeneration, tumor-associated metabolic adaptation, lysosomal dysfunction, infection-associated autophagy responses, and stress-induced cellular remodeling pathways.

Because WIPI2 localizes to early autophagic membrane structures, it serves as an important marker for investigations involving phagophore formation and autophagic pathway activation. WIPI2-associated punctate intracellular localization patterns are frequently used to evaluate autophagic flux and autophagosome-associated signaling responses in cultured cells and tissue systems. WIPI2 additionally contributes to coordination of intracellular membrane dynamics and vesicular trafficking-associated signaling networks involved in cellular homeostasis.

This WIPI2 Antibody supports research involving autophagosome formation, autophagy initiation signaling, intracellular membrane trafficking, lysosomal regulation, phagophore assembly, stress-response-associated signaling pathways, and cellular homeostasis regulation.

Explore additional autophagy and intracellular signaling pathway markers on our Signal Transduction Antibodies landing page, including antibodies targeting lysosomal regulation, vesicle trafficking, stress-response signaling, and cellular homeostasis-associated pathways.

Application Notes

Optimal dilution of the WIPI2 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 418-436 was used as the immunogen for the WIPI2 antibody.

Storage

Aliquot the WIPI2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

WIPI2 antibody, WD repeat domain phosphoinositide-interacting protein 2 antibody, ATG18 homolog antibody, Autophagosome formation protein antibody, Phagophore assembly protein antibody, WIPI autophagy protein antibody

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