

Datasheet: MCA5780GA

### **BATCH NUMBER 151000**

Description:	MOUSE ANTI WIPI2	
Specificity:	WIPI2	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	2A2	
Isotype:	lgG1	
Quantity:	0.1 mg	

# **Product Details**

### **Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				
Immunohistology - Frozen				
Immunohistology - Paraffin	•			
ELISA				
Immunoprecipitation	•			
Western Blotting	•			
Immunofluorescence	•			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

Target Species	Human
Species Cross Reactivity	Reacts with: Mouse  N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
Product Form	Purified IgG - liquid
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )		
Carrier Free	Yes		
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml		
Immunogen	Synthetic peptide corresponding to the C-terminus of WIPI2b (CSALRLDEDSEHPPMILRTD)		
External Database			
Links	UniProt:		
	Q9Y4P8 Related reagents		
	Q80W47 Related reagents		
	Entrez Gene:		
	26100 WIPI2 Related reagents		
	74781 Wipi2 Related reagents		
RRID	AB_10845951		

### **Specificity**

Mouse anti Human WIPI2 antibody, clone 2A2 recognies WD repeat domain phosphoinositide-interacting protein 2 (WIPI-2), also known as WIPI49-like protein 2. WIPI2 is a 454 amino acid ~54 kDa autophagosomal marker containing three WD repeats. WIPI2 is a mammalian orthologue of the yeast protein Atg18 and is similarly recruited to early autophagosomal structures and is required for their maturation into mature autophagosomes (Polson et al. 2010).

Human WIPI2 exists in multiple isoforms including WIPI2A, the canonical 454 amino acid isoform and WIPI2B with deletions towards both the N and C terminal regions. Mouse anti Human WIPI2 antibody, clone 2A2 was generated using a C-terminal sequence and recognizes both WIPI2A and WIPI2B by western blotting (Pantoom et al. 2020)

Mouse anti Human WIPI2 antibody, clone 2A2 has been used for the immunofluorescent detection of WIPI2 in the human retinal epithelial cell line RPE1 (MacVicar and Lane 2014).

#### References

- 1. Polson, H.E. *et al.* (2010) Mammalian Atg18 (WIPI2) localizes to omegasome-anchored phagophores and positively regulates LC3 lipidation. <u>Autophagy. 6 (4): 506-22.</u>
- 2. Dooley, H.C. *et al.* (2014) WIPI2 links LC3 conjugation with PI3P, autophagosome formation, and pathogen clearance by recruiting Atg12-5-16L1. Mol Cell. 55 (2): 238-52.
- 3. MacVicar, T.D. and Lane, J.D. (2014) Impaired OMA1-dependent cleavage of OPA1 and reduced DRP1 fission activity combine to prevent mitophagy in cells that are dependent on oxidative phosphorylation. <u>J Cell Sci. 127: 2313-25.</u>
- 4. Karanasios, E. *et al.* (2014) Imaging autophagy. <u>Curr Protoc Cytom. 69:</u> 12.34.1-12.34.16.
- 5. Gomez-Sanchez, J.A. et al. (2015) Schwann cell autophagy, myelinophagy, initiates

myelin clearance from injured nerves. J Cell Biol. 210 (1): 153-68.

6. Kjos, I. *et al.* (2017) Rab7b modulates autophagic flux by interacting with Atg4B. <u>EMBO</u> Rep. 18 (10): 1727-39.

7. Nascimbeni, A.C. *et al.* (2017) ER-plasma membrane contact sites contribute to autophagosome biogenesis by regulation of local PI3P synthesis. <u>EMBO J. 36 (14)</u>: 2018-33.

8. Pantoom, S. *et al.* (2020) RAB33B recruits the ATG16L1 complex to the phagophore via a noncanonical RAB binding protein. <u>Autophagy.: 1-15.</u>

Storage Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend

microcentrifugation before use.

Guarantee 12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at:

https://www.bio-rad-antibodies.com/SDS/MCA5780GA

10040

**Regulatory** For research purposes only

## Related Products

## **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...) RPE

Goat Anti Mouse IgG (STAR70...) FITC

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Goat Anti Mouse IgG (STAR77...) HRP

Rabbit Anti Mouse IgG (STAR9...) FITC

1110

Rabbit Anti Mouse IgG (STAR13...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M368387:200529'

#### Printed on 01 Aug 2024