

## Datasheet: MCA5780GA

**BATCH NUMBER 158945**

<b>Description:</b>	MOUSE ANTI WIPI2
<b>Specificity:</b>	WIPI2
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2A2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	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

<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Synthetic peptide corresponding to the C-terminus of WIPI2b (CSALRLDEDESEHPPMILRTD)
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">Q9Y4P8</a>    <a href="#">Related reagents</a></p> <p><a href="#">Q80W47</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">26100</a>    WIPI2    <a href="#">Related reagents</a></p> <p><a href="#">74781</a>    Wipi2    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_10845951
<b>Specificity</b>	<p><b>Mouse anti Human WIPI2 antibody, clone 2A2</b> recognises 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 <a href="#">WD repeats</a>. WIPI2 is a mammalian orthologue of the yeast protein <a href="#">Atg18</a> and is similarly recruited to early autophagosomal structures and is required for their maturation into mature autophagosomes (<a href="#">Polson et al. 2010</a>).</p> <p>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 (<a href="#">Pantoom et al. 2020</a>)</p> <p>Mouse anti Human WIPI2 antibody, clone 2A2 has been used for the immunofluorescent detection of WIPI2 in the human retinal epithelial cell line RPE1 (<a href="#">MacVicar and Lane 2014</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Polson, H.E. <i>et al.</i> (2010) Mammalian Atg18 (WIPI2) localizes to omegasome-anchored phagophores and positively regulates LC3 lipidation. <a href="#">Autophagy. 6 (4): 506-22.</a></li> <li>2. Dooley, H.C. <i>et al.</i> (2014) WIPI2 links LC3 conjugation with PI3P, autophagosome formation, and pathogen clearance by recruiting Atg12-5-16L1. <a href="#">Mol Cell. 55 (2): 238-52.</a></li> <li>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. <a href="#">J Cell Sci. 127: 2313-25.</a></li> <li>4. Karanasios, E. <i>et al.</i> (2014) Imaging autophagy. <a href="#">Curr Protoc Cytom. 69: 12.34.1-12.34.16.</a></li> <li>5. Gomez-Sanchez, J.A. <i>et al.</i> (2015) Schwann cell autophagy, myelinophagy, initiates</li> </ol>

- 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. [EMBO 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. [EMBO J. 36 \(14\): 2018-33.](#)
8. Pantoom, S. *et al.* (2020) RAB33B recruits the ATG16L1 complex to the phagophore via a noncanonical RAB binding protein. [Autophagy. : 1-15.](#)
9. Deitersen, J. *et al.* (2021) High-throughput screening for natural compound-based autophagy modulators reveals novel chemotherapeutic mode of action for arzanol. [Cell Death Dis. 12 \(6\): 560.](#)
10. Boukhalfa, A. *et al.* (2020) PI3KC2 $\alpha$ -dependent and VPS34-independent generation of PI3P controls primary cilium-mediated autophagy in response to shear stress. [Nat Commun. 11 \(1\): 294.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA5780GA>  
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**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](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

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