

## Datasheet: MCA358G

**BATCH NUMBER 165639**

|                      |                          |
|----------------------|--------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN F-ACTIN |
| <b>Specificity:</b>  | ACTIN F TYPE             |
| <b>Format:</b>       | Purified                 |
| <b>Product Type:</b> | Monoclonal Antibody      |
| <b>Clone:</b>        | NH3                      |
| <b>Isotype:</b>      | IgM                      |
| <b>Quantity:</b>     | 0.5 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             | ▪   |    |                | 1 / 10             |
| Immunohistology - Frozen   | ▪   |    |                |                    |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      | ▪   |    |                | 1 / 10             |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting           | ▪   |    |                | 1/100 - 1/500      |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

|                                 |  |
|---------------------------------|--|
| <b>Target Species</b>           | Human  |
| <b>Species Cross Reactivity</b> | <p>Reacts with: Rabbit, Rat, Mouse</p> <p><b>N.B.</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.</p> |
| <b>Product Form</b>             | Purified IgM - liquid  |
| <b>Preparation</b>              | Purified IgM prepared from tissue culture supernatant  |

|                                       |  |
|---------------------------------------|--|
| <b>Buffer Solution</b>                | Phosphate buffered saline  |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide   |
| <b>Approx. Protein Concentrations</b> | IgM concentration 1.0 mg/ml  |
| <b>Immunogen</b>                      | Human monocytes and U937 cell line.  |
| <b>External Database Links</b>        | <p><b>UniProt:</b></p> <p><a href="#">P60709</a>    <a href="#">Related reagents</a></p> <p><a href="#">P63261</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">60</a>    ACTB    <a href="#">Related reagents</a></p> <p><a href="#">71</a>    ACTG1    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | ACTB, ACTG   |
| <b>Fusion Partners</b>                | Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.  |
| <b>Specificity</b>                    | <p><b>Mouse anti Human F-Actin antibody, clone NH3</b> recognizes human Filamentous actin (F-actin), the polymeric form of actin.. Mouse anti Human F-Actin antibody, clone NH3 binds to the N-terminal region of actin, but not to the extreme N-terminal 40 amino acids.</p> <p>In tissue sections the antibody stains the cytoplasm of macrophages strongly, and gives granular, localized nuclear staining of all cell types.</p>  |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. Dransfield, I. <i>et al.</i> (1988) Initial characterization of an anti-actin monoclonal antibody (NH3). <a href="#">Biochem Soc Trans. 16: 163-4.</a></li> <li>2. Allen, K.M. &amp; Haworth, S.G. (1989) Cytoskeletal features of immature pulmonary vascular smooth muscle cells: the influence of pulmonary hypertension on normal development. <a href="#">J Pathol. 158 (4): 311-7.</a></li> <li>3. McCarthy, A.M. <i>et al.</i> (2006) Loss of cortical actin filaments in insulin-resistant skeletal muscle cells impairs GLUT4 vesicle trafficking and glucose transport. <a href="#">Am J Physiol Cell Physiol. 291: C860-8.</a></li> <li>4. Bhonagiri, P. <i>et al.</i> (2011) Evidence coupling increased hexosamine biosynthesis pathway activity to membrane cholesterol toxicity and cortical filamentous actin derangement contributing to cellular insulin resistance. <a href="#">Endocrinology. 152: 3373-84.</a></li> <li>5. Chen, X. <i>et al.</i> (2013) Molecular characterization of severin from <i>Clonorchis sinensis</i> excretory/secretory products and its potential anti-apoptotic role in hepatocarcinoma PLC cells. <a href="#">PLoS Negl Trop Dis. 7 (12): e2606.</a></li> <li>6. Grice, B.A. <i>et al.</i> (2019) Excess membrane cholesterol is an early contributing reversible aspect of skeletal muscle insulin resistance in C57BL/6NJ mice fed a Western-style high-fat diet. <a href="#">Am J Physiol Endocrinol Metab. 317 (2): E362-E373.</a></li> </ol> |

7. Fang, S.H. *et al.* (2019) Relationship of  $\alpha$ 2-Macroglobulin with Steroid-Induced Femoral Head Necrosis: A Chinese Population-Based Association Study in Southeast China. [Orthop Surg. 11 \(3\): 481-486.](#)

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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/MCA358G>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgM (STAR138...) [Alk. Phos.](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgM NEGATIVE CONTROL \(MCA692\)](#)

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

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