Overview

Product name: Anti-Influenza A Virus M2 Protein antibody [14C2]

Description: Mouse monoclonal [14C2] to Influenza A Virus M2 Protein

Host species: Mouse

Tested applications: Suitable for: Inhibition Assay, Flow Cyt, ICC/IF, ICC, IP, WB

Species reactivity: Reacts with: Influenza A

Immunogen: Tissue, cells or virus corresponding to Influenza A Virus M2 Protein. Full length M2 protein from A/WSN/33-infected CV1 cell lysate.

Epitope: Detects the N-terminal of the Influenza A Virus M2 Protein.

Positive control: ICC/IF: Infected MDCK cells.

General notes: Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.
Form: Liquid

Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Storage buffer: Preservative: 0.05% Sodium azide
Constituents: 99% PBS, 0.1% BSA

Purity: Protein G purified

Primary antibody notes: Influenza A virus is an enveloped virus encoding 10 polypeptides. RNA segment 7 encodes for two proteins: M1 (matrix 1) and M2 (matrix 2). M1 protein is encoded by an mRNA that is colinear, while M2 protein is synthesized from spliced mRNA. M2 protein is a transmembrane protein composed of three Domains: 1) 24 residues representing the N-terminal region, 2) 19 hydrophobic residues that serve as a membrane anchor, and 3) 54 residues near the C-terminal in the cytoplasmic domain. The M2 protein has been found to play a role in Influenza replication and assembly of virion particles. Further experimentation has demonstrated that this protein is an acid-activated ion channel for virus replication.

Clonality: Monoclonal

Clone number: 14C2

Isotype: IgG1

Light chain type: kappa

Applications:

Our Abpromise guarantee covers the use of ab5416 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhibition Assay</td>
<td>Use at an assay dependent concentration.</td>
<td></td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>Use at an assay dependent concentration. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>ICC/IF</td>
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<td>Use a concentration of 1 µg/ml.</td>
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<tr>
<td>ICC</td>
<td>🟢🟢🟢🟢🟢</td>
<td>Use a concentration of 1 µg/ml.</td>
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<tr>
<td>IP</td>
<td>Use a concentration of 10 µg/ml.</td>
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</tr>
<tr>
<td>WB</td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 15 kDa.</td>
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</table>

Target:

Relevance: The Matrix protein M2 forms a protons channel. When the environmental pH is lower than a threshold, the M2 channel is activated and selectively transports protons across the membrane from the extracellular side to the cytoplasmic side. It is crucial for the uncoating process. When the virion is internalized into the endosome the channel can acidify the virion interior, promoting the dissociation of the viral matrix protein (M1) from the ribonucleoprotein (RNP) thus allowing the transport of the RNP from the virion into the cell’s nucleus. For some influenza virus subtypes, the
M2 channel can elevate the intravesicular pH of the trans Golgi network, preventing the viral protein haemagglutinin, which is transported to the cell surface through the trans Golgi network, from incorrect maturation in an otherwise low pH environment.

**Cellular localization**


**Images**

Immunofluorescence staining of infected MDCK cells using ab5416.

Immunocytochemistry/ Immunofluorescence - Anti-Influenza A Virus M2 Protein antibody [14C2] (ab5416)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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