

Product datasheet

Anti-Influenza A Virus M2 Protein antibody [14C2] ab5416

★★★★★ [2 Abreviews](#) [68 References](#) [1 Image](#)

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: ICC
Species reactivity	Reacts with: Influenza A
Immunogen	Full length protein 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 with Influenza A.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&As</p>

Properties

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 hydro-

phobic 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

The Abpromise guarantee 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.

Application	Abreviews	Notes
ICC	★★★★★ (1)	Use a concentration of 1 µg/ml.

Target

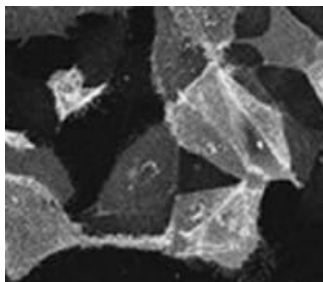
Relevance

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 accross 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

Virion membrane. Apical cell membrane; Single-pass type III membrane protein.

Images



Immunofluorescence staining of infected dog MDCK cells using ab5416.

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

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