

Product datasheet

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

★★★★★ 2 Abreviews 37 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: 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.

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 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.

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

Target

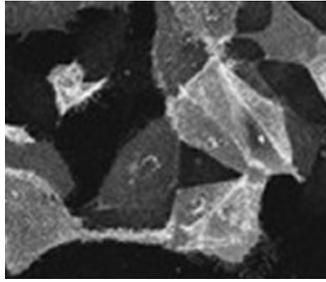
Relevance

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

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

Images



Immunofluorescence staining of infected MDCK cells using ab5416.

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

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