abcam

Product datasheet

Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] ab313889

Recombinant RabMAb

7 Images

Overview

Product name	Anti-Influenza A Virus M2 Protein antibody [EPR28252-11]
Description	Rabbit monoclonal [EPR28252-11] to Influenza A Virus M2 Protein
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, Flow Cyt (Intra), ICC/IF, WB, Indirect ELISA **Unsuitable for:** IP
Species reactivity	**Reacts with:** Influenza A
Immunogen	**This product was produced with the following immunogens:** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: 293T transfected with an Influenza A virus M2 expression vector containing a His tag, whole cell lysates. IHC-P: HEK-293T transfected with an Influenza A virus M2 expression vector containing a myc tag. ICC/IF: 293T cells transfected with an Influenza A virus M2 expression vector containing a myc tag. Flow Cyt (intra): 293T cells transfected with an Influenza A virus M2 expression vector containing a myc tag.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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. Avoid freeze / thaw cycle.

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR28252-11
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab313889 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
IHC-P		1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/500.
ICC/IF		1/100.
WB		1/1000. Detects a band of approximately 20 kDa (predicted molecular weight: 11 kDa).
Indirect ELISA		Use a concentration of 0.125 µg/ml.

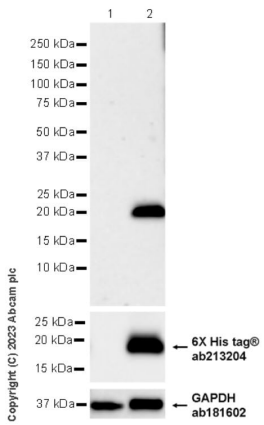
Application notes Is unsuitable for IP.

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



Western blot - Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

All lanes : Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889) at 1/1000 dilution

Lane 1 : 293T (human embryonic kidney epithelial cell) cells transfected with an empty vector containing a His tag, whole cell lysate
Lane 2 : 293T cells transfected with an Influenza A virus M2 expression vector containing a His tag, whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 11 kDa
Observed band size: 20 kDa

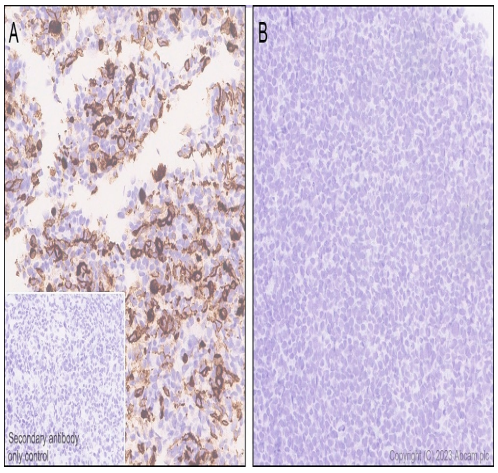
Exposure time: 59 seconds

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (**ab181602**) staining at 1/200000 dilution.

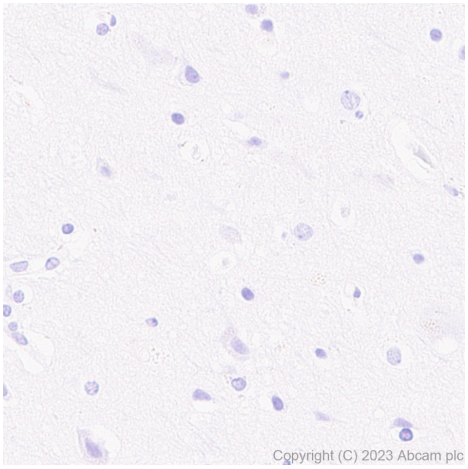
In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (**ab213204**) staining at 1/5000 dilution.

Exposure time: 59 seconds



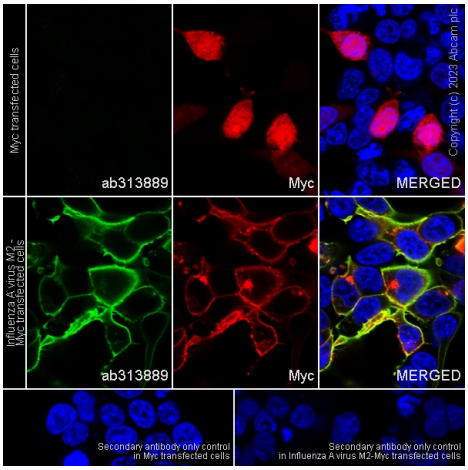
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

Immunohistochemical analysis of paraffin-embedded HEK-293T cell labeling Influenza A Virus M2 Protein with ab313889 at 1/4000 (0.132 µg/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive on (A) HEK-293T transfected with an Influenza A virus M2 expression vector containing a myc tag; no staining on (B) HEK-293T transfected with an empty vector.The section was incubated with ab313889 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems Bond® RX instrumentIncubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background. Counterstained with Hematoxylin. Secondary antibody: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



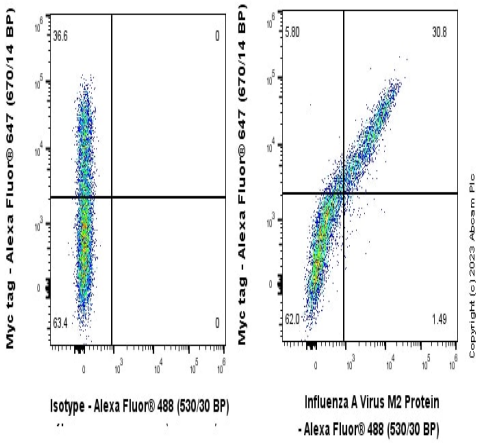
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Influenza A Virus M2 Protein with ab313889 at 1/4000 (0.132 µg/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: No staining on human cerebrum.The section was incubated with ab313889 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems Bond® RX instrumentIncubate slides with 3% Hydrogen Peroxide for 10 mins at room temperature after secondary antibody incubation to reduce the background. Counterstained with Hematoxylin. Secondary antibody: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



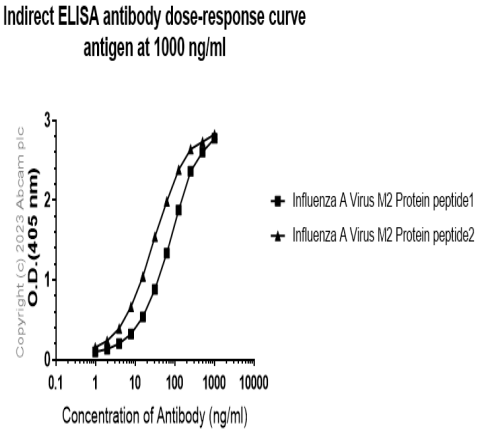
Immunocytochemistry/ Immunofluorescence - Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells labelling Influenza A Virus M2 Protein with ab313889 at 1/100 (5.26 µg/ml) dilution, followed by **ab313890** antibody at 1/1000 (2 µg/ml) dilution (Green). Confocal image showing membranous and cytoplasmic staining in 293T cells transfected with an Influenza A virus M2 expression vector containing a myc tag. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). **ab223894** Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain at 1/100 (5µg/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control : Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L t at 1/1000 (2 µg/ml) dilution.



Flow Cytometry (Intracellular) - Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized 293T (human embryonic kidney epithelial cell) transfected with an Influenza A virus M2 expression vector containing a myc tag cells labelling Influenza A Virus M2 Protein with ab313889 at 1/500 dilution (0.1 ug)/Right compared with a Rabbit monoclonal IgG (**ab172730**) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody). A Goat Anti-Rabbit IgG (Alexa Fluor ® 488, **ab150081**) at 1/5000 dilution was used as the secondary antibody. Cells are co-stained with Myc tag conjugated to Alexa Fluor ®647.



ELISA - Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

Indirect ELISA analysis of abab313889 at 1000-0 ng/ml. The Secondary antibody used was Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 2500 dilution.

Antigen: Influenza A Virus M2 Protein peptide1 Influenza A Virus M2 Protein peptide2.

Antigen concentration: 1000 ng/ml.

Anti-Influenza A Virus M2 Protein antibody [EPR28252-11] (ab313889)

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