

**Interferon-inducible protein (IFITM3) Antibody (N-term)**  
Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP1153a

**Specification**

**Interferon-inducible protein (IFITM3) Antibody (N-term) - Product Information**

Application	IHC-P-Leica, WB, IF,E
Primary Accession	<a href="#">Q01628</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	1-30

**Interferon-inducible protein (IFITM3) Antibody (N-term) - Additional Information**

Gene ID 10410

**Other Names**

Interferon-induced transmembrane protein 3, Dispanin subfamily A member 2b, DSPA2b, Interferon-inducible protein 1-8U, IFITM3

**Target/Specificity**

This Interferon-inducible protein (IFITM3) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human Interferon-inducible protein (IFITM3).

**Dilution**

IHC-P-Leica~~1:100  
WB~~1:1000  
IF~~1:100~500

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

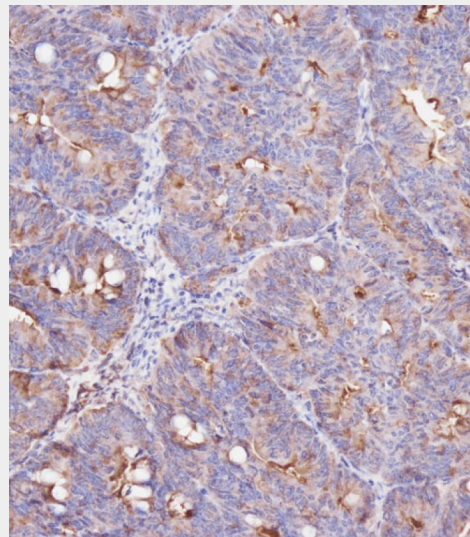
**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

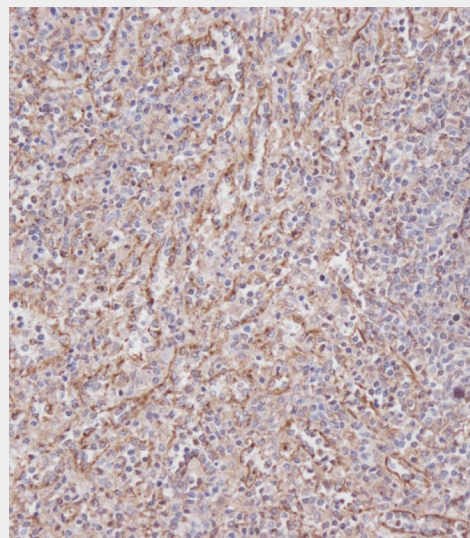
**Precautions**

Interferon-inducible protein (IFITM3) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**Interferon-inducible protein (IFITM3) Antibody (N-term) - Protein Information**



Immunohistochemical analysis of AP1153a on paraffin-embedded Human colon carcinoma tissue was performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9.0). Samples were incubated with primary antibody(1:100) for 15min at room temperature. Leica Bond Polymer Refine Detection was used as the secondary antibody.



Immunohistochemical analysis of AP1153a on paraffin-embedded Human spleen tissue was performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval

## Name IFITM3

### Function

IFN-induced antiviral protein which disrupts intracellular cholesterol homeostasis. Inhibits the entry of viruses to the host cell cytoplasm by preventing viral fusion with cholesterol depleted endosomes. May inactivate new enveloped viruses which buds out of the infected cell, by letting them go out with a cholesterol depleted membrane. Active against multiple viruses, including influenza A virus, SARS coronavirus (SARS-CoV), Marburg virus (MARV) and Ebola virus (EBOV), Dengue virus (DENV), West Nile virus (WNV), human immunodeficiency virus type 1 (HIV-1) and vesicular stomatitis virus (VSV). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2- mediated viral entry, SARS-CoV S protein-mediated viral entry and VSV G protein-mediated viral entry. Plays a critical role in the structural stability and function of vacuolar ATPase (v-ATPase). Establishes physical contact with the v-ATPase of endosomes which is critical for proper clathrin localization and is also required for the function of the v-ATPase to lower the pH in phagocytic endosomes thus establishing an antiviral state.

### Cellular Location

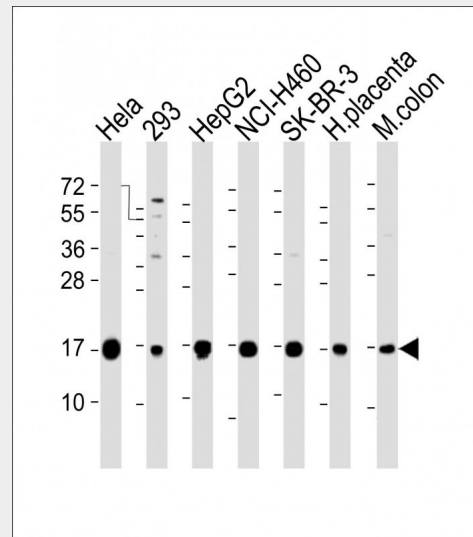
Cell membrane; Single-pass type II membrane protein. Late endosome membrane; Single-pass type II membrane protein. Lysosome membrane; Single-pass type II membrane protein

## Interferon-inducible protein (IFITM3) Antibody (N-term) - Protocols

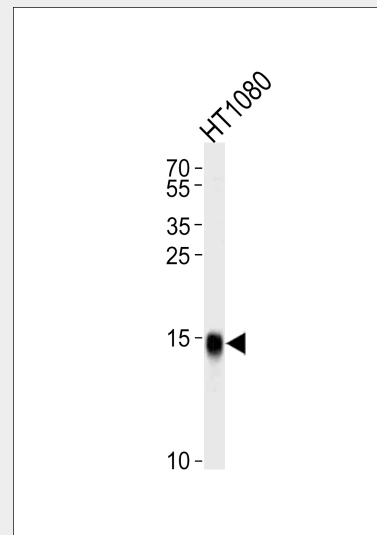
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

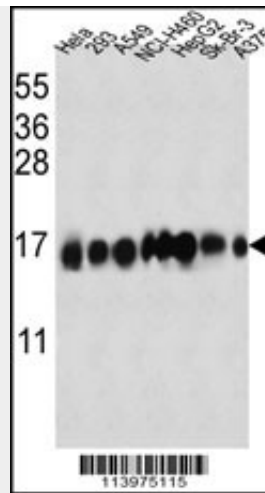
was performed by EDTA buffer (pH9.0). Samples were incubated with primary antibody(1:100) for 15min at room temperature. Leica Bond Polymer Refine Detection was used as the secondary antibody.



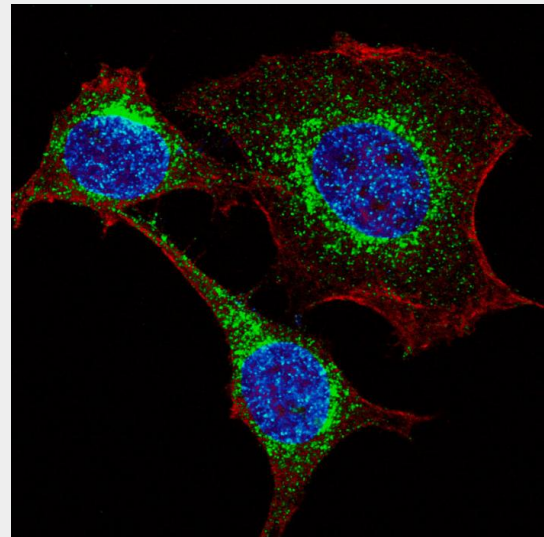
All lanes : Anti-IFITM3 Antibody (N-term) at 1:2000 dilution Lane 1: HeLa whole cell lysate Lane 2: 293 whole cell lysate Lane 3: HepG2 whole cell lysate Lane 4: NCI-H460 whole cell lysate Lane 5: SK-BR-3 whole cell lysate Lane 6: human placenta lysate Lane 7: mouse colon lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 15 kDa Blocking/Dilution buffer: 5% NFD/MTBST.



Western blot analysis of lysate from HT1080 cell line, using IFITM3 Antibody (N-term)(Cat. #AP1153a). AP1153a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35µg per lane.



IFITM3 Antibody (N-term) (Cat. #AP1153a) western blot analysis in HeLa,293,A549,NCI-H460,HepG2,Sk-Br-3,A375 cell line lysates (35ug/lane).This demonstrates the IFITM3 antibody detected the IFITM3 protein (arrow).



Fluorescent confocal image of HeLa cells stained with IFITM3 (N-term) antibody. HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with Fragilis (IFITM3) (N-term) primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (5.25  $\mu$ M, 25 min). Nuclei were counterstained with Hoechst 33342 (blue) (10  $\mu$ g/ml, 3 min). Note the highly specific localization of the IFITM3 immunoreactivity to the Golgi.

### **Interferon-inducible protein (IFITM3) Antibody (N-term) - Background**

The family of interferon-induced transmembrane protein (Ifitm/mil/fragilis) cell surface proteins may modulate cell adhesion and influence cell differentiation.

## Interferon-inducible protein (IFITM) Antibody (N-term) - References

Tanaka,S.S., Dev. Cell 9 (6), 745-756 (2005)

### Interferon-inducible protein (IFITM3) Antibody (N-term) - Citations

- [Interferon-induced transmembrane protein 3 blocks fusion of sensitive but not resistant viruses by partitioning into virus-carrying endosomes.](#)
- [Interferon-induced Transmembrane Protein 1 restricts replication of virus that enter cells via the plasma membrane.](#)
- [The IFITMs Inhibit Zika Virus Replication.](#)
- [RIG-I Signaling Is Essential For Influenza B Virus-Induced Rapid Interferon Gene Expression.](#)
- [The CD225 domain of IFITM3 is required for both IFITM protein association and inhibition of influenza A virus and dengue virus replication.](#)
- [IFITM3 restricts the morbidity and mortality associated with influenza.](#)
- [IFITM3 inhibits influenza A virus infection by preventing cytosolic entry.](#)
- [The IFITM proteins mediate cellular resistance to influenza A H1N1 virus, West Nile virus, and dengue virus.](#)