



[33270927](http://www.uniprot.org/citations/33270927)). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2-mediated viral entry, SARS-CoV and SARS-CoV-2 S protein-mediated viral entry and VSV G protein-mediated viral entry (PubMed: [33270927](http://www.uniprot.org/citations/33270927)). 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 crucial 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. In hepatocytes, IFITM proteins act in a coordinated manner to restrict HCV infection by targeting the endocytosed HCV virion for lysosomal degradation (PubMed: [26354436](http://www.uniprot.org/citations/26354436)). IFITM2 and IFITM3 display anti-HCV activity that may complement the anti-HCV activity of IFITM1 by inhibiting the late stages of HCV entry, possibly in a coordinated manner by trapping the virion in the endosomal pathway and targeting it for degradation at the lysosome (PubMed: [26354436](http://www.uniprot.org/citations/26354436)). Exerts opposing activities on SARS-CoV-2, including amphipathicity-dependent restriction of virus at endosomes and amphipathicity-independent enhancement of infection at the plasma membrane (PubMed: [33270927](http://www.uniprot.org/citations/33270927)).

### Cellular Location

Cell membrane; Single-pass type II membrane protein. Late endosome membrane; Single-pass type II membrane protein. Early endosome membrane; Single-pass type II membrane protein. Lysosome membrane; Single-pass type II membrane protein. Cytoplasm, perinuclear region. Note=Co-localizes with BRI3 isoform 1 at the perinuclear region.

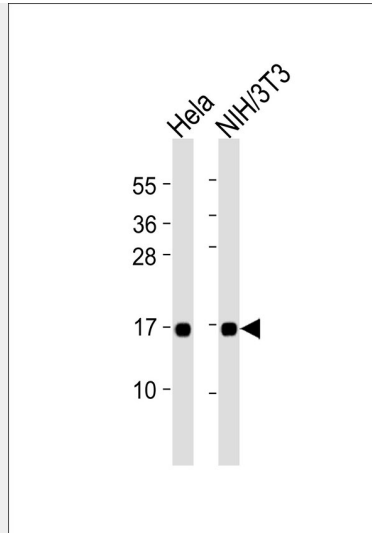
### IFITM3 Antibody - Protocols

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](#)

### IFITM3 Antibody - Images





All lanes : Anti-IFITM3 Antibody at 1:1000 dilution Lane 1: HeLa whole cell lysates Lane 2: NIH/3T3 whole cell lysates 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% NFDN/TBST.

### **IFITM3 Antibody - Background**

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.

### **IFITM3 Antibody - References**

- Lewin A.R., et al. *Eur. J. Biochem.* 199:417-423(1991).
- Everitt A.R., et al. *Nature* 484:519-523(2012).
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- Ota T., et al. *Nat. Genet.* 36:40-45(2004).
- Taylor T.D., et al. *Nature* 440:497-500(2006).