

IFIT1 Antibody
Catalog # ASC11787**Specification****IFIT1 Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	P09914
Other Accession	NP_001539 , 116534937
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 53 kDa

Application Notes	Observed: 53 kDa KDa IFIT1 antibody can be used for detection of IFIT1 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry at 5 µg/mL. For Immunofluorescence start at 20 µg/mL.
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IFIT1 Antibody - Additional InformationGene ID **3434****Target/Specificity**

IFIT1; IFIT1 antibody is human, mouse and rat reactive. At least three isoforms of IFIT1 are known to exist. This antibody is predicted to not cross-react with other members of the IFIT protein family.

Reconstitution & Storage

IFIT1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

IFIT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

IFIT1 Antibody - Protein InformationName IFIT1 ([HGNC:5407](#))**Function**

Plays a key role in the innate immune response as part of an interferon-dependent multiprotein complex, recognizing and sequestering viral RNAs that lack host-specific 2'-O-methylation at their 5' cap. By distinguishing these RNAs from host mRNAs, inhibits their translation by competing with the translation initiation factor eIF4E (PubMed:21642987, PubMed:27240734, PubMed:39009378, PubMed:23334420, PubMed:<a

<http://www.uniprot.org/citations/28251928> target="_blank">28251928, PubMed:36285486). Could also prevent viral replication through its interaction with DNA replication origin-binding protein E1 of several viruses. Causes the translocation of E1 from the nucleus to the cytoplasm and can also inhibit its helicase activity in vitro (PubMed:19008854, PubMed:21976647). Exhibits antiviral activity against many viruses from the Flaviviridae (West Nile virus, Dengue virus, hepatitis C virus), Coronaviridae (human 229E coronavirus, SARS-CoV-2 and SARS-CoV), Poxviridae (vaccinia virus) and Togaviridae (Sindbis virus) families (PubMed:19008854, PubMed:21976647, PubMed:28251928, PubMed:36285486).

Cellular Location

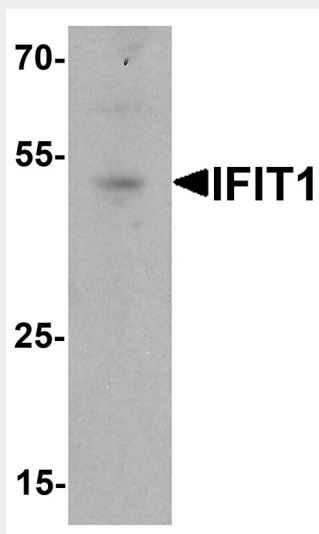
Cytoplasm

IFIT1 Antibody - Protocols

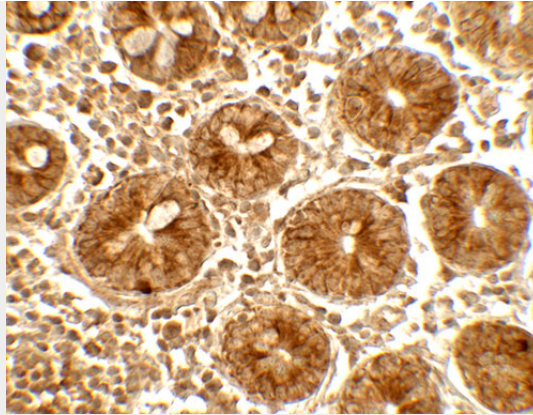
Provided below are standard protocols that you may find useful for product applications.

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

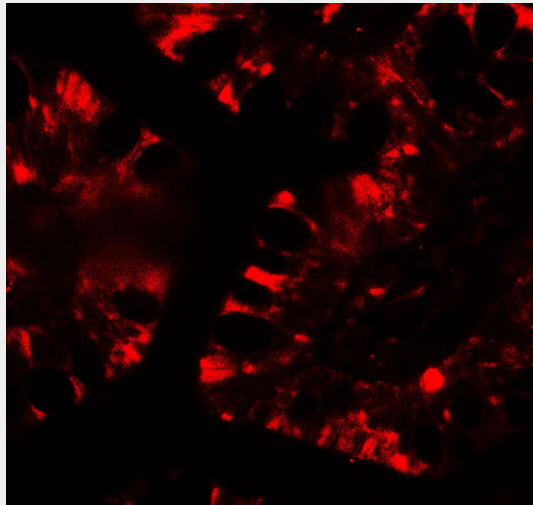
IFIT1 Antibody - Images



Western blot analysis of IFIT1 in rat small intestine tissue lysate with IFIT1 antibody at 1 µg/ml.



Immunohistochemistry of IFIT1 in human small intestine tissue with IFIT1 antibody at 5 µg/mL.



Immunofluorescence of IFIT1 in human small intestine tissue with IFIT1 antibody at 20 µg/mL.

IFIT1 Antibody - Background

The interferon-induced protein with tetratricopeptide repeats 1 (IFIT1) protein is a member of a family of tetratricopeptide repeat-containing proteins whose transcription is upregulated by interferons, virus infection, and molecular patterns such as dsRNA or lipopolysaccharides (1,2). These proteins have been suggested to induce anti-viral cellular activities in response to infection (2). Together with the interferon-induced transmembrane protein 1 (IFITM1), IFIT1 inhibits the replication of the Hepatitis C virus, suggesting that it may be useful in the development of therapeutic treatments (3).

IFIT1 Antibody - References

Wathelet M, Moutschen S, Defilippi P, et al. Molecular cloning, full-length sequence and preliminary characterization of a 56-kDa protein induced by human interferons. *Eur. J. Biochem.* 1986; 155:11-7.

Fensterl V and Sen GC. The ISG56/IFIT1 gene family. *J. Interferon Cytokine Res.* 2011; 31:71-8.

Raychoudhuri A, Shrivastava S, Steele R, et al. ISG56 and IFITM1 proteins inhibit hepatitis C virus replication. *J. Virol.* 2011; 85:12881-9.