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IFIT1 Antibody
Catalog # ASC11787

Specification

IFIT1 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P09914
Other Accession	NP_001539, 116534937
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 53 kDa** **Observed: 53 kDa KDa**
Application Notes	**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 Immunoflorescence start at 20 µg/mL.**

IFIT1 Antibody - Additional Information

Gene 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℃ for three months and -20℃, 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 Information

Name IFIT1

Synonyms G10P1, IFI56, IFNAI1, ISG56

Function
Interferon-induced antiviral RNA-binding protein that specifically binds single-stranded RNA bearing a 5'-triphosphate group (PPP-RNA), thereby acting as a sensor of viral single-stranded RNAs and inhibiting expression of viral messenger RNAs. Single-stranded PPP- RNAs, which lack 2'-O-methylation of the 5' cap and bear a 5'- triphosphate group instead, are specific from viruses, providing a molecular signature to distinguish between self and non-self mRNAs by the host during viral infection. Directly binds PPP-RNA in a non- sequence-specific manner. Viruses evolved several

ways to evade this restriction system such as encoding their own 2'-O-methylase for their mRNAs or by stealing host cap containing the 2'-O-methylation (cap snatching mechanism). Exhibits antiviral activity against several viruses including human papilloma and hepatitis C viruses.

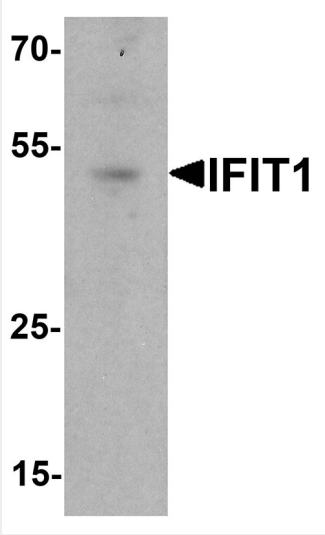
Cellular Location
Cytoplasm

IFIT1 Antibody - Protocols

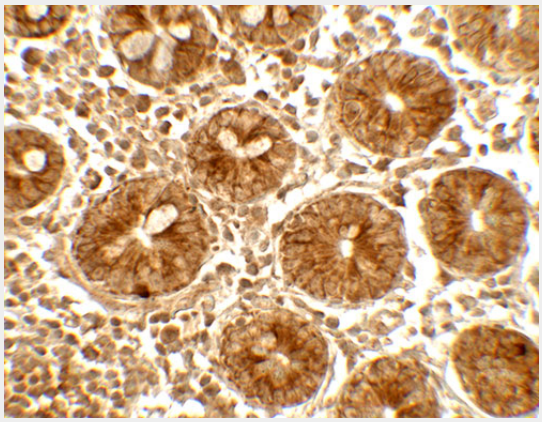
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IFIT1 Antibody - Images

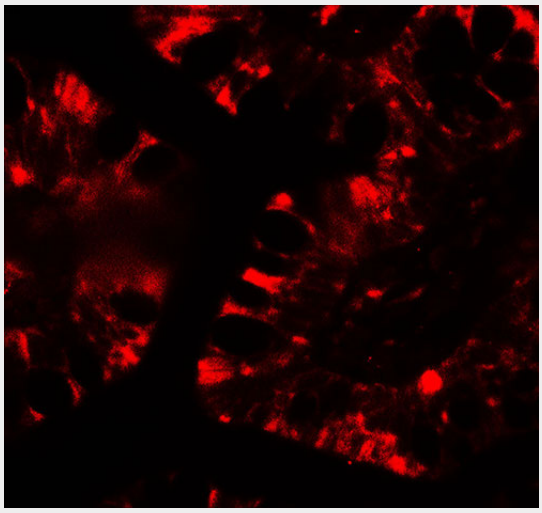


Western blot analysis of IFIT1 in rat small intestine tissue lysate with IFIT1 antibody at 1 µg/ml.



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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.