Revision 4

Store at -20C

#13530

# IFITM2 Antibody

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W, IP | H | Endogenous | 15 | Rabbit | #Q01629 | 10581 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:50 |

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

IFITM2 Antibody recognizes endogenous levels of total IFITM2 protein. This antibody does not cross-react with IFITM1 or IFITM3 proteins.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro40 of human IFITM2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

Interferon-induced transmembrane protein (IFITM) family members are composed of short amino- and carboxy-termini, two transmembrane domains, and a cytoplasmic domain (1). There are four family members in humans: IFITM1, IFITM2, IFITM3, and IFITM5 (2,3). Mice have two additional family members, IFITM6 and IFITM7 (2,3). Basal expression of IFITM proteins is observed in some cells and expression can also be induced by type I and type II interferons (4-6). The primary function of IFITM family proteins appears to be viral restriction, as IFITM proteins inhibit cytosolic entry of viruses by preventing fusion of viral and host membranes (7,8). The mechanism by which IFITM proteins inhibit fusion is unclear. Although IFITM proteins are present on both the plasma membrane and intracellular membranes, they most effectively restrict viral fusion in late endosomes and lysosomes (8,9). In addition, different family members exhibit specific viral preferences (9). For example, IFITM3 is most effective at restricting influenza A infection, while IFITM1 is more successful in controlling filoviruses and SARS (9,10).

## Background References

1. Diamond, M.S. and Farzan, M. (2013) *Nat Rev Immunol* 13, 46-57.
2. Lange, U.C. et al. (2003) *BMC Dev Biol* 3, 1.
3. Hickford, D. et al. (2012) *BMC Genomics* 13, 155.
4. Reid, L.E. et al. (1989) *Proc Natl Acad Sci U S A* 86, 840-4.
5. Lewin, A.R. et al. (1991) *Eur J Biochem* 199, 417-23.
6. Friedman, R.L. et al. (1984) *Cell* 38, 745-55.
7. Brass, A.L. et al. (2009) *Cell* 139, 1243-54.
8. Feeley, E.M. et al. (2011) *PLoS Pathog* 7, e1002337.
9. Huang, I.C. et al. (2011) *PLoS Pathog* 7, e1001258.
10. Everitt, A.R. et al. (2012) *Nature* 484, 519-23.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human

## Trademarks and Patents

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