

CD225 / IFITM1 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS14115

Specification

CD225 / IFITM1 Antibody (Internal) - Product Information

Application	ICC, IF, WB
Primary Accession	P13164
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	14kDa KDa

CD225 / IFITM1 Antibody (Internal) - Additional Information

Gene ID 8519

Other Names

Interferon-induced transmembrane protein 1, Dispanin subfamily A member 2a, DSPA2a, Interferon-induced protein 17, Interferon-inducible protein 9-27, Leu-13 antigen, CD225, IFITM1, CD225, IFI17

Target/Specificity

Human IFITM1

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

CD225 / IFITM1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

CD225 / IFITM1 Antibody (Internal) - Protein Information

Name IFITM1 ([HGNC:5412](#))

Synonyms CD225, IFI17

Function

IFN-induced antiviral protein which inhibits the entry of viruses to the host cell cytoplasm, permitting endocytosis, but preventing subsequent viral fusion and release of viral contents into the cytosol. Active against multiple viruses, including influenza A virus, SARS coronaviruses (SARS-CoV and SARS-CoV-2), Marburg virus (MARV), Ebola virus (EBOV), Dengue virus (DENV), West Nile virus (WNV), human immunodeficiency virus type 1 (HIV-1) and hepatitis C virus (HCV) (PubMed:26354436, PubMed:33270927). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2-mediated viral entry and SARS-CoV and SARS-CoV-2 S protein-mediated viral entry. Also

implicated in cell adhesion and control of cell growth and migration (PubMed:33270927). Inhibits SARS-CoV-2 S protein- mediated syncytia formation (PubMed:33051876). Plays a key role in the antiproliferative action of IFN-gamma either by inhibiting the ERK activation or by arresting cell growth in G1 phase in a p53-dependent manner. Acts as a positive regulator of osteoblast differentiation. In hepatocytes, IFITM proteins act in a coordinated manner to restrict HCV infection by targeting the endocytosed HCV virion for lysosomal degradation (PubMed: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).

Cellular Location

Cell membrane; Single-pass membrane protein. Lysosome membrane

Tissue Location

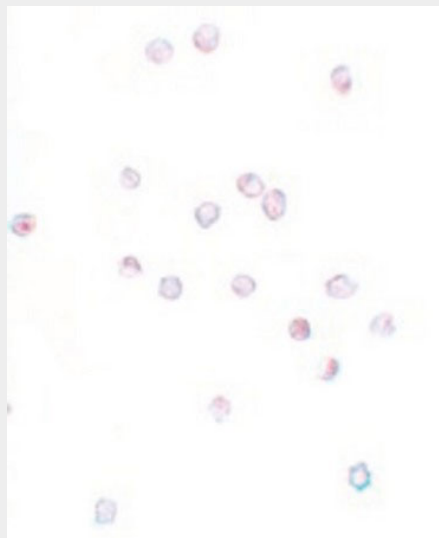
Bone (at protein level). Levels greatly elevated in colon cancer, cervical cancer, esophageal cancer and ovarian cancer Expressed in glioma cell lines.

CD225 / IFITM1 Antibody (Internal) - Protocols

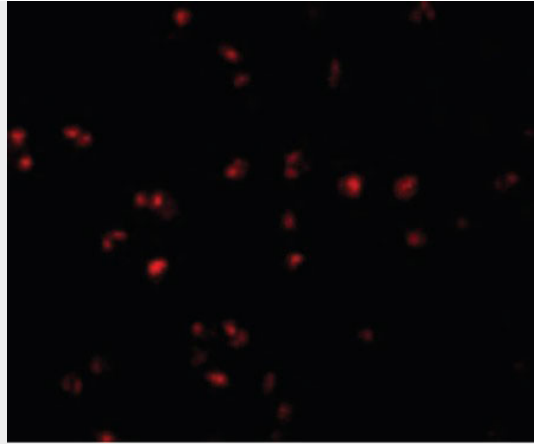
Provided below are standard protocols that you may find useful for product applications.

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

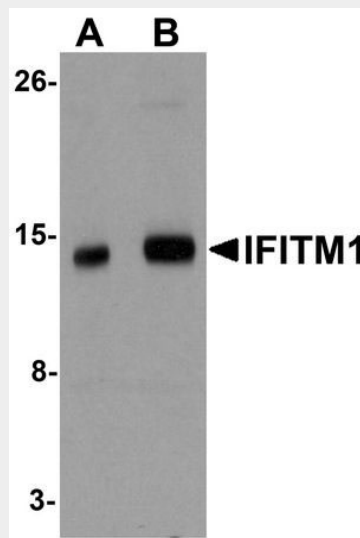
CD225 / IFITM1 Antibody (Internal) - Images



Immunocytochemistry of IFITM1 in Jurkat cells with IFITM1 antibody at 20 ug/ml.



Immunofluorescence of IFITM1 in Jurkat cells with IFITM1 antibody at 20 ug/ml.



Western blot analysis of IFITM1 in 3T3 cell lysate with IFITM1 antibody at (A) 1 and (B) 2 ug/ml.

CD225 / IFITM1 Antibody (Internal) - Background

IFN-induced antiviral protein which inhibits the entry of viruses to the host cell cytoplasm, permitting endocytosis, but preventing subsequent viral fusion and release of viral contents into the cytosol. Active against multiple viruses, including influenza A virus, SARS coronavirus (SARS-CoV), Marburg virus (MARV), Ebola virus (EBOV), Dengue virus (DNV), West Nile virus (WNV), human immunodeficiency virus type 1 (HIV-1) and hepatitis C virus (HCV). Can inhibit: influenza virus hemagglutinin protein-mediated viral entry, MARV and EBOV GP1,2-mediated viral entry and SARS-CoV S protein-mediated viral entry. Also implicated in cell adhesion and control of cell growth and migration. Plays a key role in the antiproliferative action of IFN-gamma either by inhibiting the ERK activation or by arresting cell growth in G1 phase in a p53-dependent manner. Acts as a positive regulator of osteoblast differentiation.

CD225 / IFITM1 Antibody (Internal) - References

- Reid L.E., et al. Proc. Natl. Acad. Sci. U.S.A. 86:840-844(1989).
- Deblandre G.A., et al. J. Biol. Chem. 270:23860-23866(1995).
- Kalnina N., et al. Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
- Ota T., et al. Nat. Genet. 36:40-45(2004).
- Taylor T.D., et al. Nature 440:497-500(2006).