10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IFIT3 Antibody

Catalog # ASC11788

Product Information

Application	WB, E, IHC-P
Primary Accession	O14879
Other Accession	NP_001026853, 72534658
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	55985
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	IFIT3 antibody can be used for detection of IFIT3 by Western blot at 1 - 2 g/ml. Antibody can also be used for Immunohistochemistry at 5 g/mL.

Additional Information

Gene ID	3437
Other Names	Interferon-induced protein with tetratricopeptide repeats 3, IFIT-3, CIG49, ISG-60, Interferon-induced 60 kDa protein, IFI-60K, Interferon-induced protein with tetratricopeptide repeats 4, IFIT-4, Retinoic acid-induced gene G protein, P60, RIG-G, IFIT3, CIG-49, IFI60, IFIT4, ISG60
Target/Specificity	IFIT3; IFIT3 antibody is human specific. This antibody is predicted to not cross-react with other members of the IFIT protein family.
Reconstitution & Storage	IFIT3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	IFIT3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IFIT3
Synonyms	CIG-49, IFI60, IFIT4, ISG60
Function	IFN-induced antiviral protein which acts as an inhibitor of cellular as well as viral processes, cell migration, proliferation, signaling, and viral replication. Enhances MAVS-mediated host antiviral responses by serving as an adapter bridging TBK1 to MAVS which leads to the activation of TBK1 and phosphorylation of IRF3 and phosphorylated IRF3 translocates into nucleus to promote antiviral gene transcription. Exhibits an antiproliferative activity via the up-regulation of cell cycle negative regulators CDKN1A/p21 and

	CDKN1B/p27. Normally, CDKN1B/p27 turnover is regulated by COPS5, which binds CDKN1B/p27 in the nucleus and exports it to the cytoplasm for ubiquitin-dependent degradation. IFIT3 sequesters COPS5 in the cytoplasm, thereby increasing nuclear CDKN1B/p27 protein levels. Up-regulates CDKN1A/p21 by down-regulating MYC, a repressor of CDKN1A/p21. Can negatively regulate the apoptotic effects of IFIT2.
Cellular Location	Cytoplasm. Mitochondrion
Tissue Location	Expression significantly higher in peripheral blood mononuclear cells (PBMCs) and monocytes from systemic lupus erythematosus (SLE) patients than in those from healthy individuals (at protein level). Spleen, lung, leukocytes, lymph nodes, placenta, bone marrow and fetal liver.

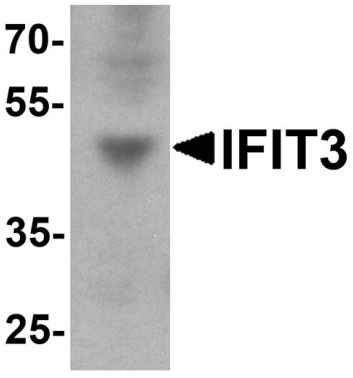
Background

The interferon-induced protein with tetratricopeptide repeats 3 (IFIT3) 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). IFIT3 has been shown to interact with TBK1 following RNA virus infection, thereby bridging TBK1 to VISA on the mitochondrion and activating IRF3 and thus the immune response (3).

References

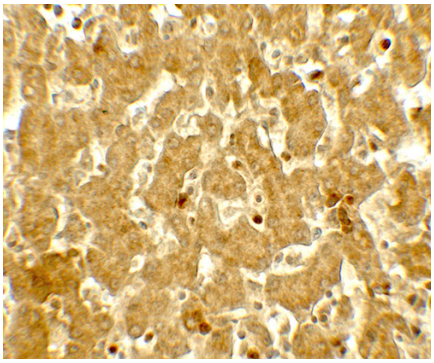
Yu M, Tong JH, Mao M, et al. Cloning of a gene (RIG-G) associated with retinoic acid-induced differentiation of acute promyelocytic leukemia cells and representing a new member of a family of interferon-stimulating genes. Proc. Natl. Acad. Sci. USA 1997; 94:7406-11.
Fensterl V and Sen GC. The ISG56/IFIT1 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.

Images



Western blot analysis of IFIT3 in HepG2 cell lysate with IFIT3 antibody at 1 µg/ml.

Immunohistochemistry of IFIT3 in human liver tissue with IFIT3 antibody at 5 µg/mL.



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