E92203

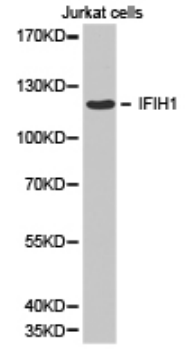
IFIH1Polyclonal Antibody

Catalog Number: E92203
Amount: 100ul
Background: Antiviral innate immunity depends on the combination of parallel pathways triggered by virus detecting proteins in the Toll-like receptor (TLR) family and RNA helicases, such as Rig-I (retinoic acid-inducible gene I) and MDA-5 (melanoma differentiation-associated antigen 5), which promote the transcription of type I interferons (IFN) and antiviral enzymes (1-3). TLRs and helicase proteins contain sites that recognize the molecular patterns of different virus types, including DNA, single-stranded RNA (ssRNA), double-stranded RNA (dsRNA), and glycoproteins. These antiviral proteins are found in different cell compartments; TLRs (i.e. TLR3, TLR7, TLR8, and TLR9) are expressed on endosomal membranes and helicases are localized to the cytoplasm. Rig-I expression is induced by retinoic acid, LPS, IFN, and viral infection (4,5). Both Rig-I and MDA-5 share a DExD/H-box helicase domain that detects viral dsRNA and two amino-terminal caspase recruitment domains (CARD) that are required for triggering downstream signaling (4-7). Rig-I binds both dsRNA and viral ssRNA that contains a 5'-triphosphate end not seen in host RNA (8,9). Though structurally related, Rig-I and MDA-5 detect a distinct set of viruses (10,11). The CARD domain of the helicases, which is sufficient to generate signaling and IFN production, is recruited to the CARD domain of the MAVS/VISA/Cardif/IPS-1 mitochondrial protein, which triggers activation of NF-κB, TBK1/IKKε, and IRF-3/IRF-7 (12-15).
Species: Rabbit
Isotype: IgG
Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Synonyms: Hlcd; IDDM19; MDA-5; MDA5; MGC133047;
Immunogen: Recombinant proteinof human IFIH1
Purification: Affinity purification
Reactivity: H M R
Applications: WB IHC
Molecular Weight: 117kDa
Swiss-Prot No. : Q9BYX4
Gene ID: 64135
References: 1. Yoneyama, M. and Fujita, T. (2007) J Biol Chem 282, 15315-8. 2. Meylan, E. and Tschopp, J. (2006) Mol Cell 22, 561-9. 3. Thompson, A.J. and Locarnini, S.A. (2007) Immunol Cell Biol 85, 435-45. 4. Imaizumi, T. et al. (2002) Biochem Biophys Res Commun 292, 274-9. 5. Zhang, X. et al. (2000) Microb Pathog 28, 267-78. 6. Yoneyama, M. et al. (2005) J Immunol 175, 2851-8. 7. Yoneyama, M. et al. (2004) Nat Immunol 5, 730-7. 8. Hornung, V. et al. (2006) Science 314, 994-7. 9. Pichlmair, A. et al. (2006) Science 314, 997-1001. 10. Kato, H. et al. (2006) Nature 441, 101-5. 11. Childs, K. et al. (2007) Virology 359, 190-200. 12. Meylan, E. et al. (2005) Nature 437, 1167-72. 13. Xu, L.G. et al. (2005) Mol Cell 19, 727-40. 14. Kawai, T. et al. (2005) Nat Immunol 6, 981-8. 15. Seth, R.B. et al. (2005) Cell 122, 669-82.

For Research Use Only

WB 1:500 - 1:2000

IHC 1:50- 1:200



Western blot analysis of extracts of Jurkatcell lines, using IFIH1 antibody.