Active Recombinant Full Length Human IFIH1 Protein, C-Flag-tagged

Cat. No. IFIH1-04HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human IFIH1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	IFIH1 encodes MDA5 which is an intracellular sensor of viral RNA that triggers the innate immune response. Sensing RNA length and secondary structure, MDA5 binds dsRNA oligonucleotides with a modified DExD/H-box helicase core and a C-terminal domain, thus leading to a proinflammatory response that includes interferons. It has been shown that Coronaviruses (CoVs) as well as various other virus families, are capable of evading the MDA5-dependent interferon response, thus impeding the activation of the innate immune response to infection. MDA5 has also been shown to play an important role in enhancing natural killer cell function in malaria infection. In addition to its protective role in antiviral responses, MDA5 has been implicated in autoimmune and autoinflammatory diseases such as type 1 diabetes, systemic lupus erythematosus, and Aicardi-Goutieres syndrome.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	ELISA capture for autoantibodies
Molecular Mass	116.5 kDa

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

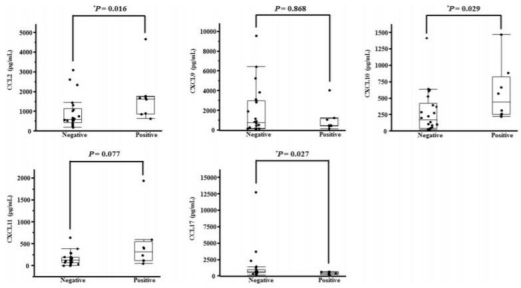
AA Sequence	MSNGYSTDENFRYLISCFRARVKMYIQVEPVLDYLTFLPAEVKEQIQRTVATSGNMQ AVELLLSTLEKGV WHLGWTREFVEALRRTGSPLAARYMNPELTDLPSPSFENAHDE YLQLLNLLQPTLVDKLLVRDVLDKCME EELLTIEDRNRIAAAENNGNESGVRELLKRI VQKENWFSAFLNVLRQTGNNELVQELTGSDCSESNAEIE NLSQVDGPQVEEQLLST TVQPNLEKEVWGMENNSSESSFADSSVVSESDTSLAEGSVSCLDESLGHNSNM G SDSGTMGSDSDEENVAARASPEPELQLRPYQMEVAQPALEGKNIIICLPTGSGKTRV AVYIAKDHLDKK KKASEPGKVIVLVNKVLLVEQLFRKEFQPFLKKWYRVIGLSGDTQL KISFPEVVKSCDIIISTAQILENS LLNLENGEDAGVQLSDFSLIIIDECHHTNKEAVYNNI MRHYLMQKLKNNRLKKENKPVIPLPQILGLTAS PGVGGATKQAKAEEHILKLCANLD AFTIKTVKENLDQLKNQIQEPCKKFAIADATREDPFKEKLLEIMTR IQTYCQMSPMSD FGTQPYEQWAIQMEKKAAKEGNRKERVCAEHLRKYNEALQINDTIRMIDAYTHLETF Y NEEKDKKFAVIEDDSDEGGDDEYCDGDEDEDDLKKPLKLDETDRFLMTLFFENNK MLKRLAENPEYENEK LTKLRNTIMEQYTRTEESARGIIFTKTRQSAYALSQWITENEK FAEVGVKAHHLIGAGHSSEFKPMTQNE QKEVISKFRTGKINLLIATTVAEEGLDIKEC NIVIRYGLVTNEIAMVQARGRARADESTYVLVAHSGSGV IERETVNDFREKMMYKAI HCVQNMKPEEYAHKILELQMQSIMEKKMKTKRNIAKHYKNNLSLITFLCKNC SVLAC SGEDIHVIEKMHHVNMTPEFKELYIVRENKTLQKKCADYQINGEIICKCGQAWGTMM VHKGLDLP CLKIRNFVVVFKNNSTKKQYKKWVELPITFPNLDYSECCLFSDEDTRTRPLEQKLISE EDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.

Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	RIG-I-like receptor signaling pathway
Full Length	Full L.

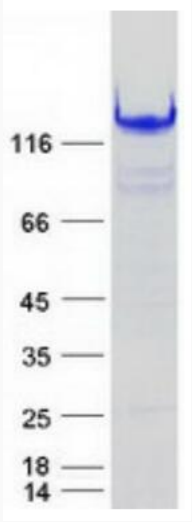
GENE INFORMATION

Gene Name	IFIH1 interferon induced with helicase C domain 1 [Homo sapiens (human)]
Official Symbol	IFIH1
Synonyms	AGS7; Hlcd; IDDM19; MDA-5; MDA5; RLR-2; SGMRT1
Gene ID	64135
mRNA Refseq	NM_022168.4
Protein Refseq	NP_071451.2
MIM	606951
UniProt ID	Q9BYX4

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA



Comparison of each of the chemokine levels (CCL2, CXCL11, CXCL9, CCL17, CXCL10) between anti-MDA5 antibody-positive and -negative patients. Anti-MDA5 antibody status was determined by ELISA using recombinant MDA5/IFIH1 antigen.



Coomassie blue staining of purified IFIH1 protein.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA