

Datasheet for ABIN7554147
IFI16 Protein (AA 1-785) (His tag)



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Overview

Quantity:	1 mg
Target:	IFI16
Protein Characteristics:	AA 1-785
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IFI16 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat IFI16 Protein expressed in mammalian cells.
Sequence:	<p>MGKKYKNIVL LKGLEVINDY HFRMVKSLLS NDLKLNLMR EEYDKIQIAD LMEEKFRGDA</p> <p>GLGKLIKIFE DIPTLEDLAE TLKKEKLKVK GPALSRKRKK EVDATSPAPS TSSTVKTEGA</p> <p>EATPGAQKRK KSTKEKAGPK GSKVSEEQTK PPSPAGAGMS TAMGRSPSPK TSLSAPPNSS</p> <p>STENPKTVAK CQVTPRRNVL QKRPVIVKVL STTKPFYET PEMEKKIMFH ATVATQTQFF</p> <p>HVKVLNTSLK EKFNKGKKIII ISDYLEYDSL LEVNEESTVS EAGPNQTFEV PNKIINRAKE</p> <p>TLKIDILHKQ ASGNIVYGVF MLHKKTVNQK TTIYEIQDDR GKMDVVGTGQ CHNIPCEEGD</p> <p>KLQLFCFRLR KKNQMSKLIS EMHSFIQIKK KTNPRNNDPK SMKLPQEQRQ LPYPSEASTT</p> <p>FPESHLRTPQ MPPTTPSSSF FTKKSEDTS KMNDFMRMQI LKEGSHFPGP FMSTIGPAES</p> <p>HPHTPQMPPS TPSSSFLTTK SEDTISKMND FMRMQILKEG SHFPGPFMTS IGPAESHPTH</p> <p>PQMPPSTPSS SFLTTLKPRL KTEPEEVSIE DSAQSDLKEV MVLNATESFV YEPKEQKKMF</p> <p>HATVATENEV FRVKVFNIDL KEKFTPCKII AIANYVCRNG FLEVYPFTLV ADVNADRNME</p>

IPKGLIRSAS VTPKINQLCS QTKGSFVNGV FEVHKKNVRG EFTYYEIQDN TGKMEVWHG
RLTTINCEEG DKLKLTCEFL APKSGNTGEL RSVIHSIKV IKTRKNKKDI LNPDSMETSPDFF

Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

Grade:

custom-made

Target Details

Target:

IFI16

Alternative Name:

IFI16 ([IFI16 Products](#))

Background:

Gamma-interferon-inducible protein 16 (Ifi-16) (Interferon-inducible myeloid differentiation transcriptional activator),FUNCTION: Binds double-stranded DNA. Binds preferentially to supercoiled DNA and cruciform DNA structures. Seems to be involved in transcriptional regulation. May function as a transcriptional repressor. Could have a role in the regulation of hematopoietic differentiation through activation of unknown target genes. Controls cellular proliferation by modulating the functions of cell cycle regulatory factors including p53/TP53 and the retinoblastoma protein. May be involved in TP53-mediated transcriptional activation by enhancing TP53 sequence-specific DNA binding and modulating TP53 phosphorylation status.

Target Details

Seems to be involved in energy-level-dependent activation of the ATM/ AMPK/TP53 pathway coupled to regulation of autophagy. May be involved in regulation of TP53-mediated cell death also involving BRCA1. May be involved in the senescence of prostate epithelial cells. Involved in innate immune response by recognizing viral dsDNA in the cytosol and probably in the nucleus. After binding to viral DNA in the cytoplasm recruits TMEM173/STING and mediates the induction of IFN-beta. Has anti-inflammatory activity and inhibits the activation of the AIM2 inflammasome, probably via association with AIM2. Proposed to bind viral DNA in the nucleus, such as of Kaposi's sarcoma-associated herpesvirus, and to induce the formation of nuclear caspase-1-activating inflammasome formation via association with PYCARD. Inhibits replication of herpesviruses such as human cytomegalovirus (HCMV) probably by interfering with promoter recruitment of members of the Sp1 family of transcription factors. Necessary to activate the IRF3 signaling cascade during human herpes simplex virus 1 (HHV-1) infection and promotes the assembly of heterochromatin on herpesviral DNA and inhibition of viral immediate-early gene expression and replication. Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer. {ECO:0000269|PubMed:11146555, ECO:0000269|PubMed:12894224, ECO:0000269|PubMed:14654789, ECO:0000269|PubMed:20890285, ECO:0000269|PubMed:21573174, ECO:0000269|PubMed:21575908, ECO:0000269|PubMed:22046441, ECO:0000269|PubMed:22291595, ECO:0000269|PubMed:23027953, ECO:0000269|PubMed:24198334, ECO:0000269|PubMed:24413532, ECO:0000269|PubMed:9642285}, FUNCTION: [Isoform IFI16-beta]: Isoform that specifically inhibits the AIM2 inflammasome (PubMed:30104205). Binds double-stranded DNA (dsDNA) in the cytoplasm, impeding its detection by AIM2 (PubMed:30104205). Also prevents the interaction between AIM2 and PYCARD/ASC via its interaction with AIM2, thereby inhibiting assembly of the AIM2 inflammasome (PubMed:30104205). This isoform also weakly induce production of type I interferon-beta (IFNB1) via its interaction with STING1 (PubMed:30104205). {ECO:0000269|PubMed:30104205}.

Molecular Weight: 88.3 kDa

UniProt: [Q16666](#)

Pathways: [Activation of Innate immune Response](#), [Positive Regulation of Endopeptidase Activity](#), [Autophagy](#), [Inflammasome](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months