Datasheet for ABIN7554178

IRF3 Protein (AA 1-427) (His tag)

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Overview

Quantity:	1 mg
Target:	IRF3
Protein Characteristics:	AA 1-427
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IRF3 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant IRF3 Protein expressed in mammalian cells.
Sequence:	MGTPKPRILP WLVSQLDLGQ LEGVAWVNKS RTRFRIPWKH GLRQDAQQED FGIFQAWAEA TGAYVPGRDK PDLPTWKRNF RSALNRKEGL RLAEDRSKDP HDPHKIYEFV NSGVGDFSQP DTSPDTNGGG STSDTQEDIL DELLGNMVLA PLPDPGPPSL AVAPEPCPQP LRSPSLDNPT PFPNLGPSEN PLKRLLVPGE EWEFEVTAFY RGRQVFQQTI SCPEGLRLVG SEVGDRTLPG WPVTLPDPGM SLTDRGVMSY VRHVLSCLGG GLALWRAGQW LWAQRLGHCH TYWAVSEELL PNSGHGPDGE VPKDKEGGVF DLGPFIVDLI TFTEGSGRSP RYALWFCVGE SWPQDQPWTK RLVMVKVVPT CLRALVEMAR VGGASSLENT VDLHISNSHP LSLTSDQYKA YLQDLVEGMD FQGPGES **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

Product Details

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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	IRF3
Alternative Name:	IRF3 (IRF3 Products)
Background:	Interferon regulatory factor 3 (IRF-3),FUNCTION: Key transcriptional regulator of type I interferon (IFN)-dependent immune responses which plays a critical role in the innate immune response against DNA and RNA viruses (PubMed:8524823, PubMed:22394562, PubMed:25636800, PubMed:27302953, PubMed:24049179, PubMed:31340999, PubMed:36603579). Regulates the transcription of type I IFN genes (IFN-alpha and IFN-beta) and IFN-stimulated genes (ISG) by binding to an interferon-stimulated response element (ISRE) in their promoters (PubMed:8524823, PubMed:11846977, PubMed:16846591, PubMed:16979567, PubMed:20049431, PubMed:36603579, PubMed:32972995). Acts as a more potent activator of the IFN-beta (IFNB) gene than the IFN-alpha (IFNA) gene and plays a critical role in both the early and late phases of the IFNA/B gene induction (PubMed:16846591, PubMed:16979567, PubMed:20049431, PubMed:36603579). Found in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, is phosphorylated by IKBKE and TBK1 kinases

Target Details

	(PubMed:22394562, PubMed:25636800, PubMed:36603579, PubMed:27302953). This induces a conformational change, leading to its dimerization and nuclear localization and association with CREB binding protein (CREBBP) to form dsRNA-activated factor 1 (DRAF1), a complex which activates the transcription of the type I IFN and ISG genes (PubMed:16154084, PubMed:27302953, PubMed:33440148, PubMed:36603579). Can activate distinct gene expression programs in macrophages and can induce significant apoptosis in primary macrophages (PubMed:16846591). In response to Sendai virus infection, is recruited by TOMM70:HSP90AA1 to mitochondrion and forms an apoptosis complex TOMM70:HSP90AA1:IRF3:BAX inducing apoptosis (PubMed:25609812). Key transcription factor regulating the IFN response during SARS-CoV-2 infection (PubMed:33440148). {ECO:0000269|PubMed:16154084, ECO:0000269|PubMed:22394562, ECO:0000269|PubMed:24049179, ECO:0000269|PubMed:25609812, ECO:0000269|PubMed:25636800, ECO:0000269|PubMed:27302953, ECO:0000269|PubMed:31340999, ECO:0000269|PubMed:31413131, ECO:0000269|PubMed:32972995, ECO:0000269|PubMed:33440148, ECO:0000269|PubMed:36603579, ECO:0000269|PubMed:8524823, ECO:0000303|PubMed:11846977, ECO:0000303|PubMed:16846591, ECO:0000303|PubMed:16979567, ECO:0000303|PubMed:20049431}.
Molecular Weight:	47.2 kDa
UniProt:	Q14653
Pathways:	TLR Signaling, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Hepatitis C, Toll-Like Receptors Cascades

Application Details

Application Notes:	We expect the protein to work for functional studies. 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.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months