

Recombinant Human Interferon Regulatory Factor 3

Cat. No. IRF3-27H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human interferon regulatory factor 3 produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 111 amino acids (1-112) and having a molecular mass of 13 kDa. The Interferon Regulatory Factor-3 is purified by proprietary chromatographic techniques.
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Species	Human
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Source	E.coli
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Protein Length	1-112 a.a.
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Description	Members of the Interferon regulatory factor (IRF) family regulate gene expression critical to immune response, hemopoiesis, and proliferation. IRF-3 is a member of the IRF family, and is distinct from other family members. Its transcriptional activity is regulated solely by posttranslational modifications. It plays a crucial role in activation of innate immunity and inflammation in response to viral infection. IRF-3 mediates interferon-stimulated response element (isre) promoter activation. Functions as a molecular switch for antiviral activity. Dsrna generated during the course of an viral infection leads to IRF3 phosphorylation on the c-terminal serine/threonine cluster. This induces a conformational change, leading to its dimerization, nuclear localization and association with creb binding protein (crebbp) to form dsrna-activated factor 1 (draf1), a complex which activates the transcription of genes under the control of isre. The complex binds to the ie and prdiii regions on the ifn-alpha and ifn-beta promoters respectively. IRF-3 does not have any transcription activation domains.
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Amino Acid Sequence	MGTPKPRILP WLVSQDLGQ LEGVAWVNKS RTRFRIPWKH GLRQDAQQED FGIFQAWAEA TGAYVPGRDK PDLPTWKRNF RSALNRKEGL RLAEDRSKDP HDPHKIYEFV NS.
Physical Appearance	Sterile Filtered colorless solution.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	1mg/ml in phosphate-buffered saline (PBS), pH 7.4.
Storage	Liquid Interferon although stable at 10°C for 1 week, should be stored below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	IRF3 interferon regulatory factor 3 [Homo sapiens]
Synonyms	IRF3; interferon regulatory factor 3; IRF-3
Gene ID	3661
mRNA Refseq	NM_001571
Protein Refseq	NP_001562
MIM	603734
UniProt ID	Q14653

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Chromosome Location	19q13.3-q13.4
Pathway	RIG-I-like receptor signaling pathway; Toll-like receptor signaling pathway
Function	RNA polymerase II transcription factor activity; transcription cofactor activity; transcription factor activity

PDB rendering based on 1j2f.

