

## 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 *E. Coli* 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.

**Species** Human

**Source** E.coli

**Protein Length** 1-112 a.a.

**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 a 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 c/EBPβ to form dsrna-activated factor 1 (daf1), 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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<b>Amino Acid Sequence</b>	MGTPKPRILP WLVSQDLGQ LEGVAWVNKS RTRFRIPWKH GLRQDAQQED FGIFQAWAEA TGAYVPGRDK PDLPTWKRFN RSALNRKEGL RLAEDRSKDP HDPHKIYEFV NS.
<b>Physical Appearance</b>	Sterile Filtered colorless solution.
<b>Purity</b>	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
<b>Formulation</b>	1mg/ml in phosphate-buffered saline (PBS), pH 7.4.
<b>Storage</b>	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

<b>Gene Name</b>	<a href="#">IRF3 interferon regulatory factor 3 [ Homo sapiens ]</a>
<b>Synonyms</b>	IRF3; interferon regulatory factor 3; IRF-3
<b>Gene ID</b>	<a href="#">3661</a>
<b>mRNA Refseq</b>	<a href="#">NM_001571</a>
<b>Protein Refseq</b>	<a href="#">NP_001562</a>
<b>MIM</b>	<a href="#">603734</a>
<b>UniProt ID</b>	<a href="#">Q14653</a>

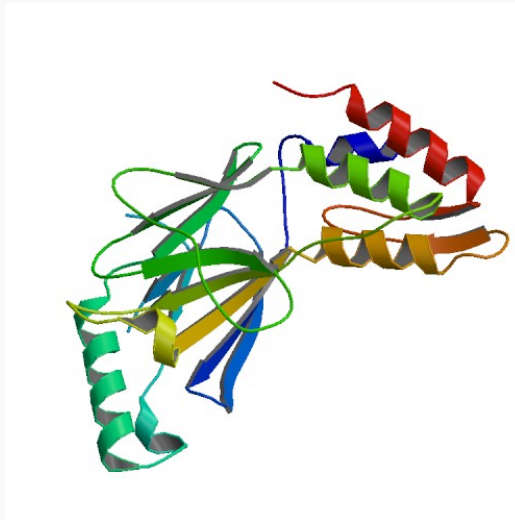
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<b>Chromosome Location</b>	19q13.3-q13.4
<b>Pathway</b>	RIG-I-like receptor signaling pathway; Toll-like receptor signaling pathway
<b>Function</b>	RNA polymerase II transcription factor activity; transcription cofactor activity; transcription factor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

PDB rendering based on 1j2f.



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