

# **California Bioscience**

# **Product Datasheet**

Product Name	Interferon Regulatory Factor-3 Human Recombinant
Cata No	CB500194
Source	Escherichia Coli.
Synonyms	IRF-3.

# 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. IRF-3 Human Recombinant 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.

#### **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.

#### Stability

Liquid Interferon although stable at 10°C for 1 wee k, 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.** 

#### Sequence

MGTPKPRILP WLVSQLDLGQ LEGVAWVNKS RTRFRIPWKH GLRQDAQQED FGIFQAWAEA TGAYVPGRDK PDLPTWKRNF RSALNRKEGL RLAEDRSKDP HDPHKIYEFV NS.