

Product datasheet

Recombinant Human IRF3 protein ab205216

Description

Product name	Recombinant Human IRF3 protein	
Purity	<p>> 90 % SDS-PAGE.</p> <p>ab205216 was expressed in E.coli as inclusion bodies, refolded using a unique “temperature shift inclusion body refolding” technology, chromatographically purified and sterile-filtered.</p>	
Expression system	Escherichia coli	
Accession	Q14653	
Protein length	Full length protein	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	<pre> MASMTGGQQMGRGHHHHHHENLYFQGEFGTPKPRIL PWLVSQDLGQLEG VAWVNKSRTFRIPWKHGLRQDAQQEDFGIFQAWAE ATGAYVPRDKPDL PTWKRNFERSALNRKEGLRLAEDRSKDPHDPHKIYEFV NSGVGDFSQPPTS PDTNGGGSTSDTQEDILDELLGNMVLAPLPDPGPPSL AVAPEPCQPPLRS PSLDNPTFPNLPSENPLKRLVPGEEWFEVTAFFY RGRQVFQQTISCP EGLRLVGSEVGDRTLPGWVTLPLDPGMSLTDRGVMS YRHLVLSCLGGGLA LWRAGQWLWAQRLGHCHTYWAVSEELLPNSGHGPD GEVPKDKEGGVFDLG PFMDLITFTEGSRSPRYALWFCVGESWPQDQPWTK RLVMVKVPTCLR ALVEMARVGGASSENTVDLHISNSHPLSLTSDQYKAY LQDLVEGMDFQG PGES </pre>	
Predicted molecular weight	50 kDa including tags	
Amino acids	2 to 427	
Tags	His-T7 tag N-Terminus	
Additional sequence information	With 29 aa N-terminal T7 / His / TEV cleavage site tag (NP_001562.1).	

Specifications

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Our [Abpromise guarantee](#) covers the use of **ab205216** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -80°C.

pH: 8.00

Constituent: 0.32% Tris HCl

Contains NaCl, KCl, EDTA, Sucrose and DTT.

General Info

Function 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 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.

Tissue specificity Expressed constitutively in a variety of tissues.

Sequence similarities Belongs to the IRF family.
Contains 1 IRF tryptophan pentad repeat DNA-binding domain.

Post-translational modifications Constitutively phosphorylated on many serines residues. C-terminal serine/threonine cluster is phosphorylated in response of induction by IKBKE and TBK1. Ser-385 and Ser-386 may be specifically phosphorylated in response to induction. An alternate model propose that the five serine/threonine residues between 396 and 405 are phosphorylated in response to a viral infection. Phosphorylation, and subsequent activation of IRF3 is inhibited by vaccinia virus protein E3.

Ubiquitinated; ubiquitination involves RBCK1 leading to proteasomal degradation.

Polyubiquitinated; ubiquitination involves TRIM21 leading to proteasomal degradation.

ISGylated by HERC5 resulting in sustained IRF3 activation and in the inhibition of IRF3 ubiquitination by disrupting PIN1 binding. The phosphorylation state of IRF3 does not alter ISGylation.

Cellular localization Cytoplasm. Nucleus. Shuttles between cytoplasmic and nuclear compartments, with export being the prevailing effect. When activated, IRF3 interaction with CREBBP prevents its export to the cytoplasm.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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