Interferon Regulatory Factor 1 (IRF1) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	Interferon regulatory factor 1 (IRF1), ELISA Kit
Full Product Name	Mouse Interferon regulatory factor 1 (IRF1) ELISA Kit
Product Gene Name	IRF1 elisa kit
Species Reactivity	Mouse
Assay Type	Competitive
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	1.0-25ng/mL
Sensitivity	0.1ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	36,502 Da
OMIM	gene 613659
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for IRF1 elisa kit	Epigenetics and Nuclear Signaling
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for IRF1 elisa kit	MBS7253226 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Interferon regulatory factor 1 (IRF1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing IRF1. The ELISA analytical biochemical technique of the MBS7253226 kit is based on IRF1 antibody-IRF1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect IRF1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, IRF1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of IRF1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IRF1. It may not necessarily be applicable to this product.

NCBI GI #	4504721
NCBI GeneID	3659
NCBI Accession #	NP_002189.1
UniProt Secondary Accession #	Q96GG7
UniProt Related Accession #	P10914
GenBank Nucleotide #	NM_002198.2

NCBI Official Full Name	interferon regulatory factor 1
NCBI Official Synonym Full Names	interferon regulatory factor 1
NCBI Official Symbol	IRF1
NCBI Official Synonym Symbols	MAR; IRF-1
UniProt Protein Name	Interferon regulatory factor 1
Protein Family	Interferon regulatory factor
UniProt Gene Name	IRF1
UniProt Synonym Gene Names	IRF-1
UniProt Entry Name	IRF1_HUMAN
NCBI Protein Information	interferon regulatory factor 1; interferon regulatory factor 1 isoform +I9; interferon regulatory factor 1 isoform d78; interferon regulatory factor 1 isoform delta4; interferon regulatory factor 1 isoform delta7
NCBI Summary for IRF1	IRF1 encodes interferon regulatory factor 1, a member of the interferon regulatory transcription factor (IRF) family. IRF1 serves as an activator of interferons alpha and beta transcription, and in mouse it has been shown to be required for double-stranded RNA induction of these genes. IRF1 also functions as a transcription activator of genes induced by interferons alpha, beta, and gamma. Further, IRF1 has been shown to play roles in regulating apoptosis and tumor-suppressoion. [provided by RefSeq, Jul 2008]

UniProt Comments for IRF1	IRF1: a transcriptional regulator which displays a remarkable functional diversity in the regulation of cellular responses. These include the regulation of IFN and IFN-inducible genes, host response to viral and bacterial infections, regulation of many genes expressed during hematopoiesis, inflammation, immune responses and cell proliferation and differentiation, regulation of the cell cycle and induction of growth arrest and programmed cell death following DNA damage. Stimulates both innate and acquired immune responses through the activation of specific target genes and can act as a transcriptional activator and repressor regulating target genes by binding to an interferon- stimulated response element (ISRE) in their promoters. Its target genes for transcriptional activation activity include: genes involved in anti-viral response, such as IFN-alpha/beta, DDX58, TRAIL, OAS1/2, PIAS1, PKR and RSAD2; antibacterial response, such as iNOS; anti- proliferative response, such as p53, LOX and CDKN1A; apoptosis, such as PUMA, CASP1, CASP7 and CASP8; immune response, such as IL7, IL12A/B and IL15, COX-2 and CYBB; DNA damage responses and DNA repair, such as POLQ; MHC class I expression, such as TAP1, PSMB9, PSME1, PSME2 and B2M and MHC class II expression, such as CIITA. Represses genes involved in anti-proliferative response, such as survivin, CCNB1, CCNE1, CDK1, CDK2 and CDK4 and in immune response, such as FOXP3, IL4, ANXA2 and TLR4. Stimulates p53-dependent transcription through enhanced recruitment of EP300 leading to increased acetylation of p53. Plays an important role in immune response directly affecting NK maturation and activity, macrophage production of IL12, Th1 development and maturation of CD8+ T-cells. Also implicated in the differentiation and maturation of dendritic cells and in the suppression of regulatory T (Treg) cells development. Acts as a tumor suppressor and plays a role not only in antagonism of tumor cell growth but also in stimulating an immune response against tumor cells. Defects in IRF1 are a cause of gastric adenocarcinoma (GASC), accounting for most of all gastric malignant tumors. Deletions or rearrangements of IRF1 can occur in preleukemic myelodysplastic syndrome (MDS) and acute myelogenous leukemia (AML). Protein type: Tumor suppressor; Transcription factor Chromosomal Location of Human Ortholog: 5q31.1 Cellular Component: nucleoplasm; cytoplasm; nuclear chromatin; cytosol; nucleus Molecular Function: protein binding; DNA binding Biological Process: transcription from RNA polymerase II promoter; CD8-positive, alpha-beta T cell differentiation; apoptosis; regulation of cell cycle; positive regulation of transcription, DNA-dependent; cytokine and chemokine mediated signaling pathway; regulation of MyD88-dependent toll-like receptor signaling pathway; regulation of innate immune response; negative regulation of cell proliferation; positive regulation of interleukin-12 biosynthetic process; regulation of adaptive immune response; negative regulation of regulatory T cell differentiation; positive regulation of interferon type I production; positive regulation of interferon-beta production; positive regulation of transcription from RNA polymerase II promoter; blood coagulation; cell cycle arrest; negative regulation of transcription, DNA-dependent; defense response to virus Disease: Gastric Cancer; Lung Cancer
Research Articles on IRF1	**1.** The miR-31/IRF-1/CTSS pathway may play a functional role in the pathogenesis of cystic fibrosis lung disease.
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