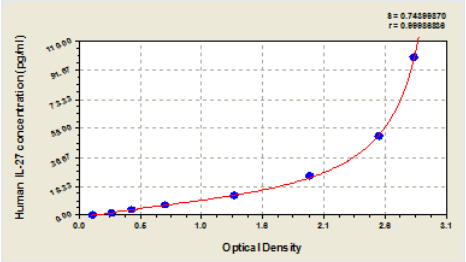
Interleukin 27 (IL27) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	interleukin 27 (IL27), ELISA Kit
Full Product Name	human Interleukin 27, IL-27 ELISA Kit
Product Gene Name	IL27 elisa kit
Product Synonym Names	human Interleukin 27; IL-27 ELISA Kit; IL-27; IL-27A; IL27p28; IL30; MGC71873; p28; IL-27 p28 subunit; interleukin 30; interleukin-27 subunit alpha; interleukin 27
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Serum, Plasma, Tissue Homogenates
Detection Range	6.25 pg/ml-400 pg/ml
Sensitivity	1.56 pg/ml.
Specificity	This assay has high sensitivity and excellent specificity for detection of human IL-23. No significant cross-reactivity or interference between human IL-23 and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Inter-assay Precision	Inter-assay Precision (Precision between assays): CV%<10%. Three samples of known concentration were tested in twenty assays to assess.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV%<8%. Three samples of known concentration were tested twenty times on one plate to assess
Molecular Weight	27,493 Da
OMIM	608273
3D Structure	ModBase 3D Structure for Q8NEV9
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for IL27 elisa kit	Principle of the Assay: This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for IL-23 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any IL-23 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for IL-23 is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of IL-23 bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of IL27 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.
Searchable Terms for IL27 purchase	MBS702498 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the interleukin 27 (IL27) 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 IL27. The ELISA analytical biochemical technique of the MBS702498 kit is based on IL27 antibody-IL27 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect IL27 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, IL27. 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(%).



Typical Testing Data/Standard Curve (for reference only) of IL27 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL27. It may not necessarily be applicable to this product.

NCBI GI #	28416913
NCBI GeneID	246778
NCBI Accession #	NP_663634.2
UniProt Primary Accession #	Q8NEV9
UniProt Secondary Accession #	Q6P676; A0N0L2
UniProt Related Accession #	Q8NEV9
GenBank Nucleotide #	NM_145659.3
NCBI Official Full Name	interleukin-27 subunit alpha
NCBI Official Synonym Full Names	interleukin 27
NCBI Official Symbol	IL27
NCBI Official Synonym Symbols	p28; IL30; IL-27; IL27A; IL-27A; IL27p28
UniProt Protein Name	Interleukin-27 subunit alpha
UniProt Synonym Protein Names	Interleukin-30; p28
Protein Family	Interleukin
UniProt Gene Name	IL27
UniProt Synonym Gene Names	IL27A; IL30; IL-27 subunit alpha; IL-27-A; IL27-A
UniProt Entry Name	IL27A_HUMAN
NCBI Protein Information	interleukin-27 subunit alpha; IL27-A; IL-27-A; interleukin 30; interleukin-30; IL-27 p28 subunit; IL-27 subunit alpha
NCBI Summary for IL27	The protein encoded by this gene is one of the subunits of a heterodimeric cytokine complex. This protein is related to interleukin 12A (IL12A). It interacts with Epstein-Barr virus induced gene 3 (EBI3), a protein similar to interleukin 12B (IL12B), and forms a complex that has been shown to drive rapid expansion of naive but not memory CD4(+) T cells. The complex is also found to synergize strongly with interleukin 12 to trigger interferon gamma (IFNG) production of naive CD4(+) T cells. The biological effects of this cytokine are mediated by the class I cytokine receptor (WSX1/TCRR). [provided by RefSeq, Jul 2008]

UniProt Comments for IL27	**Function:** Associates with EBI3 to form the IL-27 interleukin, a heterodimeric cytokine which functions in innate immunity. IL-27 has pro- and anti-inflammatory properties, that can regulate T-helper cell development, suppress T-cell proliferation, stimulate cytotoxic T-cell activity, induce isotype switching in B-cells, and that has diverse effects on innate immune cells. Among its target cells are CD4 T-helper cells which can differentiate in type 1 effector cells (TH1), type 2 effector cells (TH2) and IL17 producing helper T-cells (TH17). It drives rapid clonal expansion of naive but not memory CD4 T-cells. It also strongly synergizes with IL-12 to trigger interferon-gamma/IFN-gamma production of naive CD4 T-cells, binds to the cytokine receptor WSX-1/TCCR which appears to be required but not sufficient for IL-27-mediated signal transduction. IL-27 potentiate the early phase of TH1 response and suppress TH2 and TH17 differentiation. It induces the differentiation of TH1 cells via two distinct pathways, p38 MAPK/TBX21- and ICAM1/ITGAL/ERK-dependent pathways. It also induces STAT1, STAT3, STAT4 and STAT5 phosphorylation and activates TBX21/T-Bet via STAT1 with resulting IL12RB2 up-regulation, an event crucial to TH1 cell commitment. It suppresses the expression of GATA3, the inhibitor TH1 cells development. In CD8 T-cells, it activates STATs as well as GZMB. IL-27 reveals to be a potent inhibitor of TH17 cell development and of IL-17 production. Indeed IL27 alone is also able to inhibit the production of IL17 by CD4 and CD8 T-cells. While IL-27 suppressed the development of proinflammatory Th17 cells via STAT1, it inhibits the development of anti-inflammatory inducible regulatory T-cells, iTreg, independently of STAT1. IL-27 has also an effect on cytokine production, it suppresses proinflammatory cytokine production such as IL2, IL4, IL5 and IL6 and activates suppressors of cytokine signaling such as SOCS1 and SOCS3. Apart from suppression of cytokine production, IL-27 also antagonizes the effects of some cytokines such as IL6 through direct effects on T-cells. Another important role of IL-27 is its antitumor activity as well as its antiangiogenic activity with activation of production of antiangiogenic chemokines such as IP-10/CXCL10 and MIG/CXCL9. In vein endothelial cells, it induces IRF1/interferon regulatory factor 1 and increase the expression of MHC class II transactivator/CIITA with resulting up-regulation of major histocompatibility complex class II. IL-27 also demonstrates antiviral activity with inhibitory properties on HIV-1 replication.4 PublicationsManual assertion based on experiment in:Ref.1
Research Articles on IL27	**1.** Serum levels of IL-27 are especially elevated in breast cancer patients who are estrogen receptor-positive and progesterone receptor-positive.
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