ARG80119
Human IL27 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG80119-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG80119-002	Standard (Lyophilized)	2 X 4 ng/vial	4°C
ARG80119-003	Standard diluent buffer	20 ml	4°C
ARG80119-004	Antibody conjugate concentrate	400 µl	4°C
ARG80119-005	Antibody diluent buffer	16 ml	4°C
ARG80119-006	HRP-Streptavidin concentrate	400 µl	4°C (Protect from light)
ARG80119-007	HRP-Streptavidin diluent buffer	16 ml	4°C
ARG80119-008	20X Wash buffer	50 ml	4°C
ARG80119-009	TMB substrate	12ml	4°C (Protect from light)
ARG80119-010	STOP solution	12ml	4°C
ARG80119-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG80119 Human IL27 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human IL27 in serum, plasma and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	No significant cross-reactivity or interference with Human IL-12 p70, IL-12/IL-23 p40□mouse IL-27
Target Name	IL27
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm
Sensitivity	62.5 pg/ml
Sample Type	Serum, plasma and cell culture supernatants
Standard Range	125 - 8000 pg/ml
Sample Volume	100 µl

Precision	CV:
Alternate Names	IL-27-A; IL27-A; IL-27; Interleukin-27 subunit alpha; IL-27 subunit alpha; IL27A; IL30; Interleukin-30; IL-27A; p28; IL27p28

Application Instructions

Assay Time	4 hours

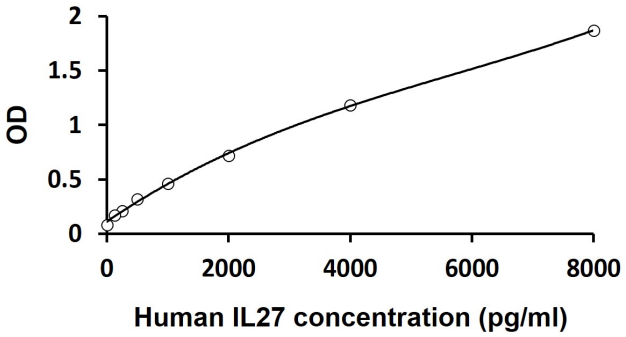
Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	IL27
Gene Full Name	interleukin 27
Background	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]
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. [UniProt]
Resrarch Area	Cancer kit; Immune System kit

Images



ARG80119 Human IL27 ELISA Kit standard curve image

ARG80119 Human IL27 ELISA Kit results of a typical standard run with optical density reading at 450 nm.