

ARG83536

## arigoQIK™ Human IL27 ELISA Development Kit

Package: 1 kit(5 plates), 1 kit  
(15 plates)  
Store at: 4°C, -20°C

## Summary

## Product Description

ARG83536 arigoQIK™ Human IL27 ELISA Development Kit, includes Capture antibody, Detection antibody, Standard, and HRP-Streptavidin Solution. This ELISA Development Kit is designed for the development of sandwich ELISA to measure Human IL27 in serum, plasma and cell culture supernatants.

For other reagents required for [arigoQIK™ ELISA Development Kit](#), please refer [ARG83524 Integral Reagent Kit \(ELISA Development Kit\)](#)

[More about arigoQIK™:](#)

- Optimized capture and detection antibody pairs
- Reduced incubation time and wash cycles
- 2-hour quicker than conventional ELISA process
- 5- and 15-plate packages available

## Tested Reactivity

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## Tested Application

ELISA

## Target Name

IL27

## Conjugation

HRP

## Conjugation Note

Substrate: TMB and read at 450 nm.

## Sensitivity

39.06 pg/ml

## Sample Type

Serum, plasma and cell culture supernatants.

## Standard Range

78.13 - 5000pg/ml

## Sample Volume

50 µl

## Alternate Names

IL27; Interleukin 27; IL27A; P28; IL27p28; IL-27A; IL-27; IL30; Interleukin-27 Subunit Alpha; IL-27 Subunit Alpha; Interleukin-30; MGC71873; IL-27-A; IL27-A; IL-27 P28 Subunit; Interleukin 30

## Properties

## Storage instruction

Store components at 4°C or -20°C. 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**

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 potentiates the early phase of TH1 response and suppresses 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 of TH1 cell 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 suppresses the development of pro-inflammatory 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 pro-inflammatory 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 increases 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]

**Highlight**

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[arigoQIK, DIY your sandwich ELISA kits;](#)

**PTM**

Secreted. [UniProt]

**Cellular Localization**

Glycoprotein. [UniProt]