



## Interleukin-27, HEK, human recombinant (rHuIL-27-HEK)

**Catalog No:** 97587  
**Lot No:** XXXXX  
**Source:** HEK293  
**Synonyms:** Interleukin-30, IL-30, IL-27/p28, p28, Interleukin-27, Interleukin-27/p28, IL-27, Interleukin-27 subunit alpha, IL-27 subunit alpha, IL27-A, Il27, Il27a, IL-27p28

### Background

Interleukin-27 protein is related to IL-12A & is one of the subunits of a heterodimeric cytokine complex. IL-27 interacts with EBV induced gene 3 also called EB13, and forms a complex that drives rapid expansion of CD4 (+) T cells. IL-27 complex synergizes with IL-12 in order to trigger the cytokine production of IFN-Gamma of CD4 (+) T cells. The biological effect of IL-27 is mediated by class-I cytokine receptor (WSX1/TCRR). The pro-inflammatory activity of IL-27 is mediated through the growing expression of key molecules involved in the MHC class-I & MHC class-II pathways. Both MHC class-I and MHC-class-II expression are increased in endothelial cells after Interleukin-27 stimulation which suggests that it may play an important role in conferring the immune function on vascular endothelium IL-27p28 subunit can be induced by IFN-beta and during LPS-induced maturation of dendritic cells in type-I IFN-dependent manner through IFN regulatory factor-1 activation. Interleukin-27 regulates Interleukin-12 responsiveness of CD4+ T cells through Stat1-dependent and -independent mechanisms. IL-17 & IL-23 play an important IL-17 role in inflammation. Interleukin-27 possesses potent anti-angiogenic activity that plays an important role in its antitumor and antimetastatic activities. EBV induced gene 3 plays a role, independently from IL-27, in regulating anti-viral or anti-tumoral immune responses. Interleukin-27 is a potent inhibitor of HIV-1 replication in macrophages, CD4+ T cells, peripheral blood mononuclear cells. Interleukin-27 triggers STAT activation and gene transcription.

### Description

Interleukin-27 human recombinant produced in HEK cells is a glycosylated heterodimer, having a molecular weight range of 25-30 kDa due to glycosylation. IL-27 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

IL-27 was lyophilized from 1 mg/ml in 1xPBS.

### Solubility

It is recommended to reconstitute the lyophilized IL-27 in sterile PBS containing 0.1% endotoxin-free recombinant HSA.

### Stability

Lyophilized IL-27, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-27 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 90% as observed by SDS-PAGE.

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### **Activity**

The specific activity was determined by the dose dependent inhibition of HIV replication in human CD4+ T cells and in human monocyte-derived macrophages and is typically 4 - 12 ng/ml.

### **Usage**

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**