

---

**Product Data Sheet**


---

Product Name: IL 27 Human  
 Cat. No.: GP20630  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	HEK.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
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.		
Amino Acid Sequence	IL-27A (215aa):FPRPPGRPQL SLQELRREFT VSLHLARKLL AEVRGQAHRF AESHLPGVNL YLLPLGEQLP DVSLTFQAWR RLSDPERLCF ISTTLQPFHA LLGGLGTQGR WTNMERMQLW AMRLDLRDLQ RHLRFQVLAA GFNLPEEEEE EEEEEEEERK GLLPGALGSA LQGPAQVSWP QLLSTYRLLH SLELVLSRAV RELLLLSKAG HSVWPLGFPT LSPQP.IL-27B (209aa):RKGPPAALT PRVQCRASRY PIAVDCSWTL PPAPNSTSPV SFIATYRLGM AARGHSWPC LQQTPTSTSTCT ITDVQLFSMA PYVLNVTAVH PWGSSSSSFVP FITEHIIKPD PPEGVRLSPL AERQLQVQWE PPGSWPFPEI FSLKYWIRYK RQGAARFHRV GPIEATSFIL RAVRPRARYY VQVAAQDLTD YGELSDWSLP ATATMSLGK.		
Solubility	It is recommended to reconstitute the lyophilized IL-27 in sterile PBS containing 0.1% endotoxin-free recombinant HSA.		
Formulation	The IL-27 was lyophilized from 1mg/ml in 1xPBS.		

**Introduction**

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

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

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.

### Biological 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 4-12ng/ml.

### Stability

Lyophilized IL-27 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IL27 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.

### Background

IL-27 Human Recombinant produced in HEK cells is a glycosylated non-covalently heterodimer that consists of 2 chains, IL27A (IL27p28) having a Mw of 25kDa and IL27B (EBI3) having a Mw of 30kDa. Each chain migrates separately on SDS-PAGE.The IL-27 protein is purified by proprietary chromatographic techniques

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA