

## 32-1502: mL 27 Recombinant Protein

**Alternative Name :** 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.

### Description

Source : Escherichia Coli. Interleukin-27 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 207 amino acids and having a molecular mass of 23.7 kDa. The Murine IL-27 is purified by proprietary chromatographic techniques. 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.

### Product Info

**Amount :** 10 µg  
**Purification :** Greater than 95.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.  
**Content :** Lyophilized from 10mM Sodium Phosphate (NaP) buffer pH-7.5.  
**Storage condition :** 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.Please prevent freeze-thaw cycles.  
**Amino Acid :** MFPTDPLSLQ ELRREFTVSL YLARKLLSEV QGYVHSFAES RLPGVNLDLL PLGYHLPNVS LTFQAWHHLS DSERLCFLAT TLRPFAMLG GLGTQGTWTS SEREQLWAMR LDLRDLHRHL RFQVLAAGFK CSKEEDKKEE EEEEEEEKK LPLGALGGPN QVSSQVSWPQ LLYTYQLLHS LELVLSRAVR DLLLLSLPRR PGSAWDS.

### Application Note

It is recommended to reconstitute the lyophilized IL-27 in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100 $\mu$ g/ml, which can then be further diluted to other aqueous solutions. Mouse p28 biological activity was measured via dose-dependent inhibition of TGF-beta and IL-6-induced IL-17A expression in mouse CD4 splenocytes. 50ng/ml corresponding to a Specific Activity of 20,000IU/mg of mouse p28 is capable of inhibiting >25% of IL-17A expression in this assay.