

32-1501: IL 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 : HEK. IL-27 Human Recombinant produced in HEK cells is a glycosylated heterodimer, having a molecular weight range of 25-30kDa due to glycosylation. The 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 EBI3, 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 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 : 5 µg
Purification : Greater than 90% as observed by SDS-PAGE.
Content : The IL-27 was lyophilized from 1mg/ml in 1xPBS.
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. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Amino Acid : FPRPPGRPQL SLQELRREFT VSLHLARKLL AEVRGQAHRF AESHLPGVNL YLLPLGEQLP DVSLTFQAWR RLSUPERLCF ISTTLQPFHA LLGGLGTQGR WTNMERMLQW AMRLDLRLDQ RHLRFQVLAA GFNLPEEEEE EEEEEEEERK GLLPGALGSA LQGAQVSWP QLLSTYRLLH SLELVLSRAV RELLLLSKAG HSVWPLGFPT LSPQP.IL-27B (209aa):RKGPPAALT PRVQCRASRY PIAVDCSWTL PPAPNSTSPV SFIATYRLGM AARGHSWPCL QQTPTSTSTCT ITDVQLFSMA PYVLNVTAVH PWGSSSSSFVP FITEHIIKPD PPEGVRLSPL AERQLQVQWE PPGSWPFPEI FSLKYWIRYK RQGAARFHRV GPIEATSFIL RAVRPRARYY VQVAAQDLTD YGELSDWSLP ATATMSLGK.

Application Note

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