Recombinant Mouse IL-27 (C-6His)

Catalog No: CS44

Description	Recombinant Mouse Interleukin-27 Subunit Alpha And Interleukin-27 Subunit Beta is produced by our Mammalian expression system and the target gene encoding Tyr19-Pro228&Phe29-Ser234 is expressed with a 6His tag at the C-terminus.
Source	Human Cells
Alternative name	Interleukin-27 subunit alpha; IL-27 subunit alpha; IL-27-A; IL27-A; p28; Il27; Il27a; Interleukin-27 subunit beta; Ebi3; IL-27 subunit beta; IL-27B; Epstein-Barr virus-induced gene 3 protein homolog
Accession No.	O35228&Q8K3I6
Predicted Molecular Weight	49kDa
AP Molecular Weight	50-65kDa, reducing conditions.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Quality Control	Purity: Greater than 95% as determined by reducing SDS-PAGE. Endotoxin: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Storage	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Background	IL-27 is a heterodimeric cytokine which belongs to the IL-6/IL-12 family of long type I cytokines. It is expressed on monocytes, endothelial cells and dendritic cells. IL-27 is an early product of activated antigen- presenting cells and drives rapid clonal expansion of naive CD4(+) T cells and plays a role in the early regulation of Th1 cells initiation which drives efficient adaptive immune response. 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. IL-27 has an antiproliferative activity on melanomas through WSX-1/STAT1 signaling. Thus, IL-27 protein may be an attractive candidate as an antitumor agent applicable to cancer immunotherapy. 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. IL-27 has also an effect on cytokine production. It suppresses proinflammatory 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.

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