IL-27 (C-6His), Mouse, Recombinant

Cat. No. : PCK258

General Information

Synonyms	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;Ebi3;Il27b
Species	Mouse
Expression host	Human Cells
Sequence	Tyr19-Pro228&Phe29-Ser234
Accession	O35228&Q8K3I6
Tag	C-6His
Mol mass	49 kDa
Expiration date	12 months

Product feature

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin (EU/μg)	< 0.1
Storage	Lyophilized protein should be stored at -5~-20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at -5~-20°C for 3 months.
Shipping	Ice bag
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 2 mM EDTA, 5% Trehalose, pH 7.4.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/mL. Dissolve the lyophilized protein in sterile water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

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.