Recombinant Mouse Interleukin-27/IL-27 Protein (His Tag)

Catalog Number:PKSM041088



Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Synonyms Interleukin-27 subunit alpha;IL-27 subunit

alpha;IL-27-A;IL27-A;p28;II27;II27a;Interleukin-27 subunit beta;Ebi3;IL-27

subunit beta;IL-27B;Epstein-Barr virus-induced gene 3 protein homolog;Ebi3;Il27b

Species Mouse

HEK293 Cells **Expression Host**

Tyr19-Pro228&Phe29-Ser234 **Sequence**

Accession O35228&Q8K3I6

Calculated Molecular Weight 49.0 kDa Observed molecular weight 50-65 kDa C-His Tag

Properties

Purity > 90 % as determined by reducing SDS-PAGE.

Endotoxin < 1.0 EU per ug of the protein as determined by the LAL method.

Storage Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

Shipping This product is provided as lyophilized powder which is shipped with ice packs.

Formulation Lyophilized from a 0.2 µm filtered solution of PBS, 2mM EDTA, 5% Trehalose,

pH 7.4.

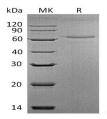
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the pri

Reconstitution Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

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

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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 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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