

**Synonym**

p28,IL30,IL-27,IL-27A,IL27p28,Interleukin-27,EBI3

Source

Biotinylated Mouse IL-27 Protein, His,Avitag(IL7-M82E4) is expressed from human 293 cells (HEK293). It contains AA Tyr 19 - Pro 228 (IL-27B) & Phe 29 - Ser 234 (IL-27A) (Accession # [O35228-1](#) (IL-27B) & [Q8K316-1](#) (IL-27A)).

Predicted N-terminus: Tyr 19

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 51.6 kDa. The protein migrates as 55 kDa & 60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 20 mM MOPS, 150 mM NaCl, 0.05% CHAPS, pH7.0 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

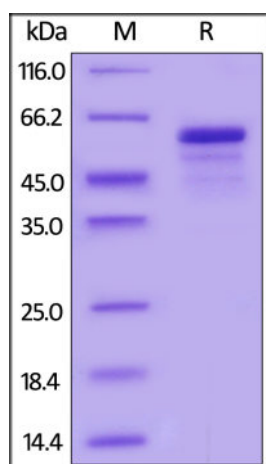
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

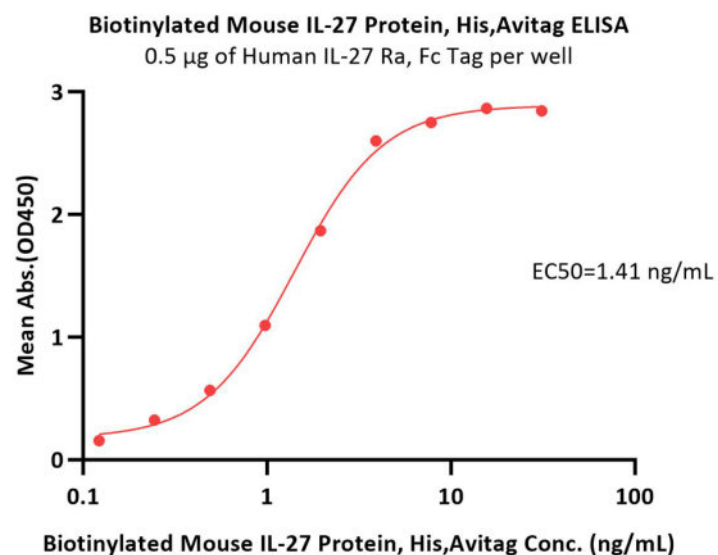
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Biotinylated Mouse IL-27 Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

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Immobilized Human IL-27 Ra, Fc Tag (Cat. No. ILA-H5254) at 5 µg/mL (100 µL/well) can bind Biotinylated Mouse IL-27 Protein, His,Avitag (Cat. No. IL7-M82E4) with a linear range of 0.2-4 ng/mL (QC tested).

Background

Interleukin-27 (IL-27) is a heterodimeric cytokine belonging to the IL-12 family that is composed of two subunits, Epstein-Barr virus (EBV)-induced gene 3 (EBI3) (also known as IL-27B) and IL27-p28 (known as IL-30). IL-27 is produced by antigen-presenting cells. IL-27 plays an important function in regulating the activity of B and T lymphocytes. The effects of IL-27 are elicited by its interaction with a specific cell surface receptor complex composed of two proteins known as IL27R and gp130. IL-27 is a cytokine with pro- and anti-inflammatory properties, that can regulate T helper cell development, suppress T-cell proliferation, stimulate cytotoxic T cell activity, induce isotype switching in B-cells, and that has diverse effects on innate immune cells. Among its target cells are CD4 T helper cells which can differentiate into type 1 effector cells (TH1), type 2 effector cells (TH2) and IL17 producing helper T-cells (TH17). It drives rapid clonal expansion of naive but not memory CD4 T-cells. IL-27 reveals to be a potent inhibitor of TH17 cell development and of IL-17 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 and antiangiogenic activity.

Clinical and Translational Updates

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