



Synonym

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

Source

Human IL-27 Protein, Fc Tag(IL7-H5254) is expressed from human 293 cells (HEK293). It contains AA Phe 29 - Pro 243 & Arg 21 - Lys 229 (Accession # [Q8NEV9-1](#) & [Q14213-1](#)).

Predicted N-terminus: Phe 29

Molecular Characterization

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 75.9 kDa. The protein migrates as 44 kDa, 48 kDa and 90-95 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>85% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH 7.5 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

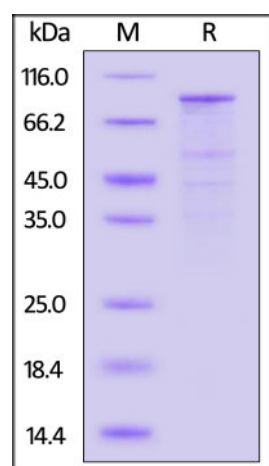
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



Human IL-27 Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85%.

Bioactivity-ELISA

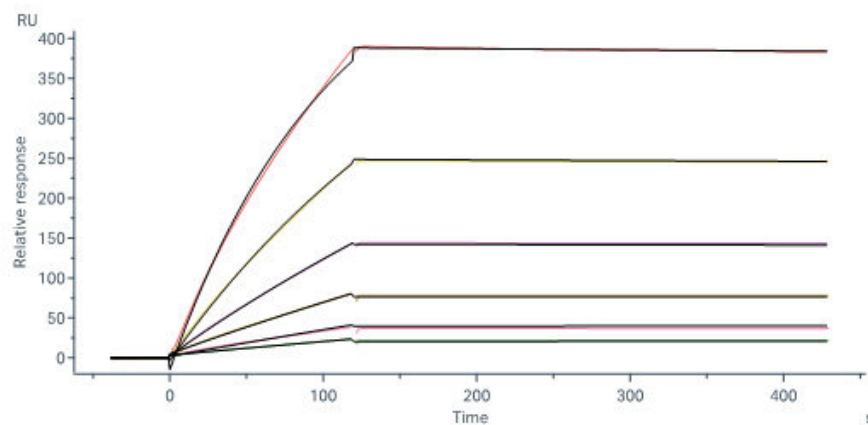
IL-27 ELISA

Immobilized Human IL-27 Protein, Fc Tag (Cat. No. IL7-H5254) at 5 µg/mL (100 µL/well) can bind Human IL-27 Ra Protein, His Tag (Cat. No. ILA-H52Hb) with a linear range of 0.008-0.25 µg/mL (Routinely tested).

Bioactivity-SPR

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Human IL-27 Ra Protein, Fc Tag (Cat. No. ILA-H5254) immobilized on CM5 Chip can bind Human IL-27 Protein, Fc Tag (Cat. No. IL7-H5254) with an affinity constant of 3.67 nM as determined in a SPR assay (Biacore 8K) (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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