



Synonym

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

Source

Human IL-27 Protein, Fc Tag, premium grade(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

Human IL-27 Protein, Fc Tag, premium grade (IL7-H5254), designed for preclinical stage, has the same activity and performance with GMP Human IL-27 Protein, which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.

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 0.1 EU per µg by the LAL method.

Sterility

Negative

Mycoplasma

Negative.

Purity

>85% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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

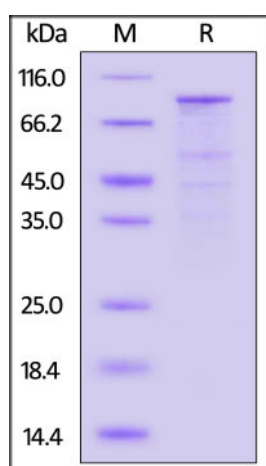
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

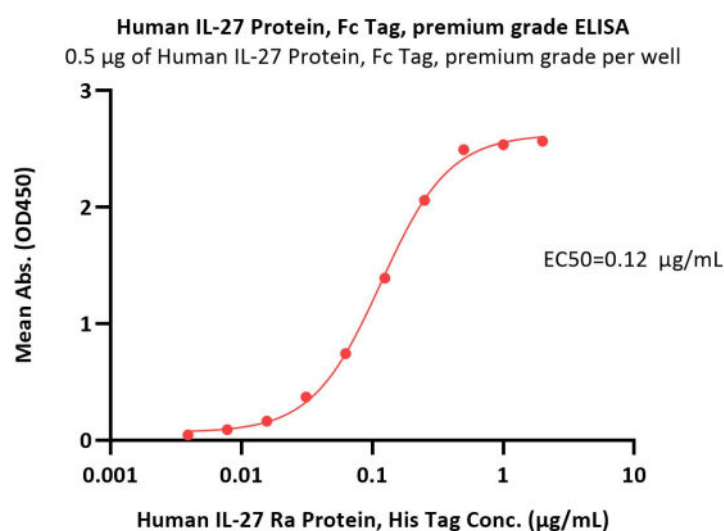


Human IL-27 Protein, Fc Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85%.

Bioactivity-ELISA

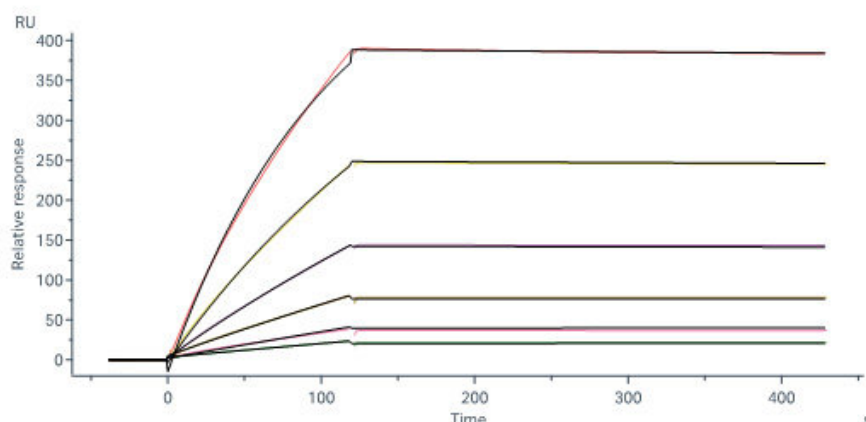
Discounts, Gifts,
and more!





Immobilized Human IL-27 Protein, Fc Tag, premium grade (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



Human IL-27 Ra Protein, Fc Tag (Cat. No. ILA-H5254) immobilized on CM5 Chip can bind Human IL-27 Protein, Fc Tag, premium grade (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

Discounts, Gifts,
and more!

