

Human IL27 / Interleukin-27 Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10076-H08S

General Information

Gene Name Synonym:

IL-27; IL-27A; IL27A; IL27p28; IL30; p28

Protein Construction:

A DNA sequence encoding the IL27 complex composed of IL27B subunit (NP_005746.2) (Met 1-Lys 229) and the N-terminally truncated IL27p28 (IL27A) subunit (NP_663634.2) (Phe 29-Pro 243) linked by a polypeptide linker was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: CHO Stable Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human IL27-His at 10 µg/ml (100 µl/well) can bind human IL27RA-Fc (Cat:10489-H02H). The EC_{50} of human IL27RA-Fc (Cat:10489-H02H) is 0.2-0.46 µg/ml. 2. Measured in antiviral assays using HepG2 cells infected with vesicular stomatitis virus (VSV). The ED_{50} for this effect is typically 23-92 ng/mL.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Arg 21

Molecular Mass:

The recombinant human IL27 complex (IL27B & IL27A) consists of 450 amino acids after removal of the signal peptide and has a calculated molecular mass of 56 KDa as estimated in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, 10% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

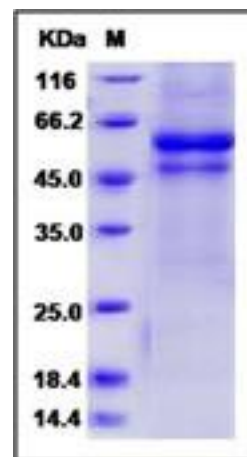
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IL-27 protein is a member of the IL-6 superfamily, which is expressed on monocytes, endothelial cells and dendritic cells. IL-27 protein is also referred as the IL-12 p35-related protein, p28, is one subunit of a heterodimeric cytokine complex, and associates with another subunit EBI3 (EBV-induced gene 3), an IL-12 p40-related protein (IL-27B). IL-27 protein 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 protein 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.

References

1. Hisada M, *et al.* (2004) Potent antitumor activity of interleukin-27. *Cancer Res.* 64(3): 1152-6.
2. Larousserie F, *et al.* (2005) Analysis of interleukin-27 (EBI3/p28) expression in Epstein-Barr virus- and human T-cell leukemia virus type 1-associated lymphomas: heterogeneous expression of EBI3 subunit by tumoral cells. *Am J Pathol.* 166(4): 1217-28.
3. Seita J, *et al.* (2008) Interleukin-27 directly induces differentiation in hematopoietic stem cells. *Blood.* 111(4): 1903-12.

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