Human IL-35 (IL12A & IL27B) Protein (Fc Tag)

Catalog Number: **10705-H02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

IL35

Protein Construction:

A DNA sequence encoding the human IL35 complex composed of IL27B subunit (NP_005746.2) (Met 1-Lys 229) and the mature form of human IL12 p35 subunit (P29459) (Arg 23-Ser 219) linked by a polypeptide linker was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio-Activity

Measured by its ability to bind biotinylated human IL6RB-Fch (Cat:10974-H03H) in a functional ELISA.

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 ℃

Predicted N terminal: Arg 21

Molecular Mass:

The recombinant human IL35/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 645 amino acids and has a predicted molecular mass of 73.4 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhIL35/Fc monomer is approximately 90-100 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

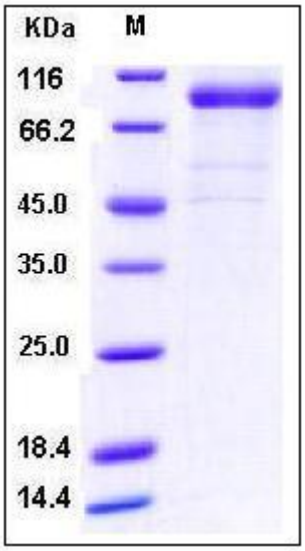
Usage Guide

Storage:

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

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitutio the products.

Protein Description

Interleukin 35 (IL35) is a novel IL12 family cytokine produced by regulatory T cells (Treg), but not by resting or activated effector T cells (Teff). IL35 is a heterodimeric protein composed of IL-12α (P35) and IL-27β chains, which are encoded by two separate genes called IL12A and EBI3 (Epstein-Barr-virus-induced gene 3) respectively. EBI3 is a downstream target of Foxp3, a transcription factor required for Treg-cell development and function, and thus Treg-cell restriction of IL35 occurs. Regulatory T cells are essential for maintaining self tolerance and preventing autoimmunity, and IL35 is identified as a molecule that mediates the immune suppression function of Treg-cell. As an inhibitory cytokine, IL35 induces proliferation of Treg-cell populations but suppresses Th17 cell development. Studies in mice show the absence of either IL35 chain from Treg-cell reduces the cells' ability to suppress inflammation using an experimental model for inflammatory bowel disease. Accordingly, IL35 is suggested as a potential target of immunotherapy.

References

1. Collison, L.W. et al., 2007, Nature. 450: 566-569.
2. Niedbala, W. et al., 2007, Eur. J. Immunol. 37: 3021-3029.
3. Marson, A. et al., 2007, Nature. 445: 931-935.