

Recombinant Human Interleukin-35/IL-35 Protein (Fc Tag)

Catalog Number: PKSH031988

Note: Centrifuge before opening to ensure complete recovery of vial contents.

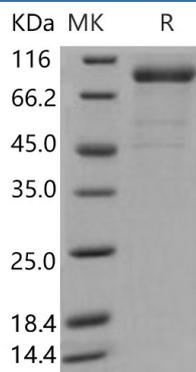
Description

| | |
|---------------------|---|
| Species | Human |
| Mol_Mass | 73.4 kDa |
| Accession | Q14213&P29459 |
| Bio-activity | Measured by its ability to bind biotinylated human IL6RB-Fch in a functional ELISA. |

Properties

| | |
|-----------------------|--|
| Purity | > 85 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per µg of the protein as determined by the LAL method. |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Data



> 85 % as determined by reducing SDS-PAGE.

Background

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The novel Ebi3-IL-12alpha heterodimeric cytokine has been designated interleukin-35 (IL-35), is a member IL12 family cytokine produced by regulatory T cells (Treg), but not by resting or activated effector T cells (Teff). IL-35 is a heterodimeric protein composed of IL-12&alpha, (P35) and IL-27&beta, chains, which are encoded by two separate genes called IL12A and EBI3 (Epstein-Barr-virus-induced gene 3) respectively. Ectopic expression of IL-35 confers regulatory activity on naive T cells, whereas recombinant IL-35 suppresses T-cell proliferation. IL-35 has biological activity and able to expand CD4+CD25+ Treg cells, suppress the proliferation of CD4+CD25- effector cells and inhibit Th17 cell polarization. IL-35 has been shown to be constitutively expressed by regulatory T (Treg) cells CD4(+)/CD25(+) Foxp3(+) and suggested to contribute to their suppressive activity. IL-35 is a crucial mediator which provokes CD4+CD25+ T cell proliferation and IL-10 generation, another well-known anti-inflammatory cytokine, along with TGFbeta cytokine. IL-35 is a cytokine can downregulate Th17 cell development and inhibit autoimmune inflammation. It inhibited the differentiation of Th17 cells in vitro. In vivo, IL-35 effectively attenuated established collagen-induced arthritis in mice, with concomitant suppression of IL-17 production but enhanced IFN-gamma synthesis. Thus, IL-35 is a novel anti-inflammatory cytokine suppressing the immune response through the expansion of regulatory T cells and suppression of Th17 cell development.

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