



Recombinant Protein Technical Manual
Recombinant Human Interleukin-35/IL-35 Protein
(Fc Tag)(Active)
RPES1037

Product Data:

Product SKU: RPES1037

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q14213&P29459

Protein Information:

Molecular Mass: 73.4 kDa

AP Molecular Mass:

Tag: C-Fc

Bio-activity: Measured by its ability to bind biotinylated human IL6RB-Fch in a functional ELISA.

Purity: > 85 % as determined by reducing SDS-PAGE.

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

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: CLMF;IL2A;IL-35;Interleukin-35;NFSK;NKSF1;P35

Immunogen Information:

Sequence: Met 1-Lys 229

Background:

The novel Ebi3-IL2 α 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 IL2 α (P35) and IL-27 β 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. It identifies IL-35 as a novel inhibitory cytokine that may be specifically produced by T(reg) cells and is required for maximal suppressive activity. IL-35 has biological activity and is 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 IL10 generation, another well-known anti-inflammatory cytokine, along with TGF β cytokine. IL-35 is a cytokine that 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 IL7 production but enhanced IFN- γ 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.