

Human IL-35 (IL-12A & IL-27B) protein, Fc Tag

Cat #: PRP100184

Size: 50µg

Product Information

	Product Name: Human IL-35 (IL-12A & IL-27B) protein, Fc Tag		
REF	Catalog Number: PRP100184	LOT	Lot Number: Refer to product label
	Purity: > 85 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: Human Cells
	Shipping: The product is shipped at ambient temperature.		

Background: 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 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 identify 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 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.

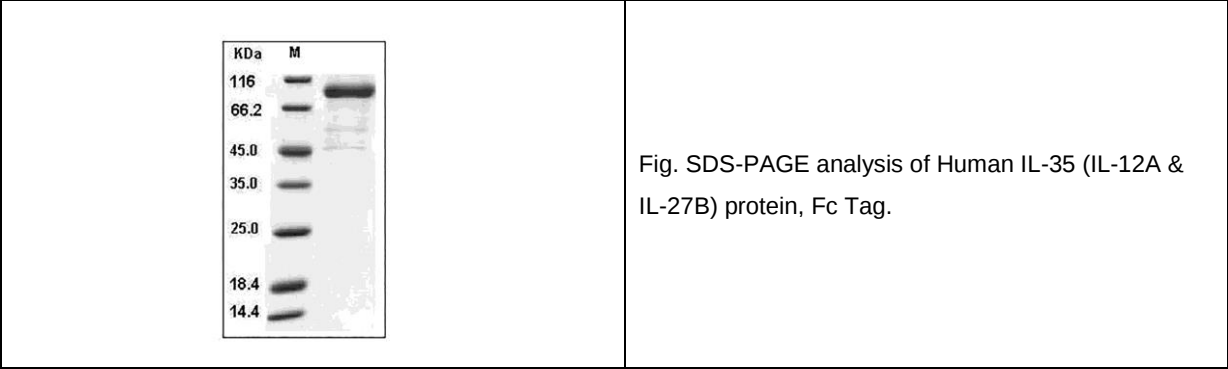
Sequence: Amino acid sequence derived from human IL35 complex composed of IL27B subunit (NP_005746.2) (Met 1-Lys 229) and the mature form of human IL12 p35 subunit (P29459) (Arg 23-Ser 219) linked by a polypeptide linker was fused with the Fc region of human IgG1 a

Protein length: 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.

Storage Instructions: Lyophilized Human IL-35 (IL12A & IL27B) protein, Fc Tag product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human IL-35 (IL12A & IL27B) protein, Fc Tag in sterile ddH₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.



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