Datasheet for ABIN7566266

Interleukin 35 Protein (IL35) (AA 21-229, AA 23-219) (Fc Tag)

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Overview

Quantity:	50 µg
Target:	Interleukin 35 (IL35)
Protein Characteristics:	AA 21-229, AA 23-219
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Interleukin 35 protein is labelled with Fc Tag.

Product Details

Purpose:	IL-35 (human):Fc (LALA-PG)-KIH (human) (rec.)
Cross-Reactivity:	Human
Characteristics:	IL-12Ap35 (aa 23-219) (human):Fc (LALA-PG) Knobs and IL-27B/EBI3 (aa 21-229) (human):Fc (LALA-PG) Holes form the IL-35 (human):Fc (LALA-PG)-KIH (human) (rec.) using the Knobs-into-Holes technology (see reference: J.B. Ridgway, et al., Protein Eng. 9, 617 (1996)).
Purity:	>95 % (SDS-PAGE)
Endotoxin Level:	<0.005 EU/µg purified protein (LAL test).
Grade:	Animal-Free

Target Details

Target:	Interleukin 35 (IL35)

Target Details

Alternative Name:	IL-35 (IL35 Products)
Background:	Interleukin-35 (human):Fc Knobs-into-Holes (human) (rec.), IL-12 Subunit alpha, EBI3, Interleukin-27 Subunit beta, Ebi3, Epstein-Barr Virus-induced Gene 3 Protein Homolog Interleukin-12 (IL-12) family members are heterodimer glycoproteins, composed of two covalently linked subunits, alpha and beta chains. The alpha-subunit consists of IL-23p19, IL-27p28, and IL-12p35 and the beta-subunit includes IL-12p40 and Epstein-Barr virus-induced gene (Ebi3). IL-12 members bind to cognate heterodimeric receptor chains expressed on T cells. This family includes IL-12, IL-23, IL-27 and IL-35 and IL-39. IL-12 and IL-23 are predominantly proinflammatory cytokines that contribute key roles in the development of Th1 and Th17 cells, respectively. IL-27 has both pro- and anti-inflammatory properties and is a potent T cell immunomodulator. IL-35, a new member of this family, is a potent inhibitory cytokine produced by natural, thymus-derived regulatory T cell (nTreg) populations. Recently, a subset of B cells that produce IL-35 was identified and shown to provide protection against autoimmune diseases. These IL-12 family members link innate immunity with the development of adaptive immunity and are also important for regulating T cell responses. IL-35 is composed of two subunits, IL-12A and Epstein-Barr virus-induced gene 3 (EBI3) signals via a heterodimeric receptor consisting of IL-12Rbeta2 and glycoprotein (gp130), leading to activation of STAT 1 and 4. IL-35 is a potent suppressive cytokine directly limiting the inflammatory response that has important roles in infection, cancer and autoimmune diseases. The protein IL-35 (human):Fc (LALA-PG)-KIH (human) (rec.) is produced by using two different vectors, one encoding for the IL-12A:Fc Knobs sequence (synthesizing a protein of 68 kDa) and one encoding for the IL27B/EBI3:Fc Holes sequence (synthesizing a protein of 60 kDa). Both vectors transfected into HEK293 cells produce both Fc molecules (Knobs-into-Holes technology, J.B. Ridgway, et al., Protein Eng. 9, 617 (1996)) required for dimerization and for secretion of the final protein IL-35 (human):Fc (LALA-PG)-KIH (human) (rec.). The LALA-PG mutations inhibit binding to FcgammaRs and C1q while FcRn binding and Fc stability remain unaffected. InVivoKines™ are a new generation of recombinant fusion proteins for immunotherapeutic, preclinical and translational in vivo research InVivoKines™ are a new generation of recombinant fusion proteins for immunotherapeutic, preclinical and translational in vivo research
Molecular Weight:	~68kDa and 60 kDa (SDS-PAGE)
UniProt:	P29459, Q14213

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	1 mg/mL after reconstitution.
Concentration:	1 mg/mL
Buffer:	Contains PBS
Handling Advice:	After reconstitution, prepare aliquots and store at -20 °C. Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution. PBS containing at least 0. 1 % BSA should be used for further dilutions.
Storage:	4 °C,-20 °C
Storage Comment:	Short Term Storage: +4°C Long Term Storage: -20°C Use & Stability: Stable for at least 6 months after receipt when stored at -20°C.Working aliquots are stable for up to 3 months when stored at -20°C.