

Datasheet for ABIN7566260

IL-27 Protein (AA 19-228, AA 29-234) (Fc Tag)[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	IL-27 (IL27)
Protein Characteristics:	AA 19-228, AA 29-234
Origin:	Mouse, Human
Source:	CHO Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This IL-27 protein is labelled with Fc Tag.

Product Details

Purpose:	IL-27 (mouse):Fc-KIH (human) (rec.)
Cross-Reactivity:	Human, Mouse
Characteristics:	IL-27A/p28 (aa 29-234) (mouse):Fc Knobs and IL-27B/EBI3 (aa 19-228) (mouse):Fc Holes form the IL-27 (mouse):Fc-KIH (human) using the Knobs-into-Holes technology (see reference: J.B. Ridgway, et al., Protein Eng. 9, 617 (1996)).
Purity:	>95 % (SDS-PAGE)
Endotoxin Level:	<0.01EU/µg purified protein (LAL test).
Biological Activity Comment:	Activates STAT3 phosphorylation in mouse and human cells.

Target Details

Target:	IL-27 (IL27)
Alternative Name:	IL-27 (IL27 Products)
Background:	<p>IL-27 (mouse):Fc Knobs-into-Holes (human) (rec.), Interleukin-27 Subunit alpha, IL-27 Subunit alpha, IL-27-A, Interleukin-27 Subunit beta, Ebi3, Epstein-Barr Virus-induced Gene 3 Protein Homolog</p> <p>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. IL-39, the newest member of IL-12 family, mediates the inflammatory response through the activation of STAT1/STAT3 signaling pathway. These IL-12 family members link innate immunity with the development of adaptive immunity and are also important for regulating T cell responses. IL-27 is composed of two subunits, IL-27p28 and Epstein-Barr virus-induced gene 3 (EBI3) signals via a heterodimeric receptor consisting of WSX-1 and glycoprotein (gp130), leading to activation of STAT 1 and 3. IL-27 is pro-inflammatory and promotes NK and T cell proliferation as well as the production of IFN-gamma. It is anti-inflammatory, inhibiting Th2 and Th17 cell activities and stimulating the production of IL-10 by T regulatory cells. IL-27 has potent antiviral activities against numerous viruses, by increasing the production of interferons (IFNs). Finally, IL-27 has antitumor activity as well as anti-angiogenic activity with activation of the production of anti-angiogenic chemokines. The protein IL-27 (mouse):Fc-KIH (human) (rec.) is produced by using two different vectors, one encoding for the IL-27A/p28:Fc Knobs sequence (synthesizing a protein of 62 kDa) and one encoding for the IL27B/EBI3: Fc Holes sequence (synthesizing a protein of 60 kDa). Both vectors transfected into CHO 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-27 (mouse): Fc-KIH (human) (rec.). InVivoKines™ are a new generation of recombinant fusion proteins for immunotherapeutic, preclinical and translational in vivo research</p>
Molecular Weight:	~62kDa and 60 kDa (SDS-PAGE)
UniProt:	Q8K3I6 , O35228

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.