

Animal-Free IL-27 beta/EBI3 Protein, Human (His)

Cat. No.:	HY-P700118AF
Synonyms:	Interleukin-27 subunit alpha; IL-27-A; Interleukin-27 subunit beta; IL-27B; Epstein-Barr virus-in_x0002_duced gene 3 protein; EBV-induced gene 3 protein; EBI3; p28; Interleukin-30; IL-30
Species:	Human
Source:	E. coli
Accession:	Q14213 (R21-K229)
Gene ID:	10148
Molecular Weight:	Approximately 24.25 kDa

PROPERTIES

AA Sequence	<pre> MRKGPAAALT LPRVQCRASR YPIAVDCSWT LPPAPNSTSP VSFIATYRLG MAARGHSWPC LQQTPTSTSC TITDVQLFSM APYVLNVTAV HPWGSSSFV PFITEHIKPK DPPEGVRLSP LAERQLQVQW EPPGSWPFPE IFSCLKYWIRY KRQGAARFHR VGPIEATSFIL LRAVRPRARY YVQVAAQDLT DYGELSDWSL PATATMSLGK </pre>
Biological Activity	Measure by its ability to induce TF-1 cells proliferation. The ED ₅₀ for this effect is <2 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The IL-27 beta/EBI3 Protein associates with IL27 to constitute the IL-27 interleukin, a heterodimeric cytokine that plays a crucial role in innate immunity. Demonstrating both pro- and anti-inflammatory properties, IL-27 regulates T-helper cell development, inhibits T-cell proliferation, stimulates cytotoxic T-cell activity, induces isotype switching in B-cells, and exerts diverse effects on innate immune cells. CD4 T-helper cells, under IL-27 influence, can differentiate into type 1 effector cells (TH1), type 2 effector cells (TH2), and IL-17-producing helper T-cells (TH17). IL-27 facilitates the rapid clonal expansion
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of naive CD4 T-cells, but not memory CD4 T-cells, and synergizes strongly with IL-12 to induce interferon-gamma/IFN-gamma production by naive CD4 T-cells. Binding to the cytokine receptor WSX-1/TCCR, IL-27 contributes to the antitumor and antiangiogenic activities, leading to the activation of production of antiangiogenic chemokines. It forms heterodimers with IL27/IL27A, recognized as interleukin IL-27, and with IL12A, forming interleukin IL-35, both not disulfide-linked. Additionally, IL-27 interacts with SQSTM1.

Caution: Product has not been fully validated for medical applications. For research use only.

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