

## IL-23 alpha (170a.a) & IL-12 beta (306a.a) Heterodimer Protein, Human (Biotinylated, HEK293, His-Avi)

<b>Cat. No.:</b>	HY-P700745
<b>Synonyms:</b>	IL23 alpha; IL12 beta; IL23 alpha&IL12 beta ; IL12 β; IL23 alpha&IL12 β; IL-23A&IL-12B; IL23A&IL12B
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q9NPF7 (R20-P189)&P29460 (I23-S328)
<b>Gene ID:</b>	51561&3593
<b>Molecular Weight:</b>	24 kDa (IL-23 alpha) & 40-50 kDa (IL-12 beta)

### PROPERTIES

<b>Biological Activity</b>	Immobilized Biotinylated Human IL-23 alpha&IL-12 beta, His Tag at 0.5 µg/mL (100 µl/Well) on streptavidin (5 µg/mL) precoated plate. Dose response curve for Anti-IL-23 Antibody, hFc Tag with the EC <sub>50</sub> of ≤3.6 ng/mL determined by ELISA.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	IL-23, in collaboration with IL12B, forms the pro-inflammatory cytokine IL-23, playing diverse roles in both innate and adaptive immunity. Released by antigen-presenting cells such as dendritic cells or macrophages, IL-23 binds to a heterodimeric receptor complex comprising IL12RB1 and IL23R, initiating a cascade involving JAK2 and TYK2 activation. These kinases phosphorylate the receptor, creating a docking site for the subsequent phosphorylation of STAT3 and STAT4. This process activates multiple pathways, including p38 MAPK or NF-kappa-B, fostering the production of pro-inflammatory cytokines, such as interleukin-17A/IL17A. Additionally, IL-23 actively participates in the early and effective clearance of intracellular bacteria. Notably, IL-23 promotes the expansion and survival of T-helper 17 cells, a CD4-positive helper T-cell subset known for producing IL-17, alongside other IL-17-producing cells. The heterodimeric association of IL-23 with IL12B, known as interleukin IL-23, is disulfide-linked. Furthermore, IL-23 interacts with IL23R, facilitating the recruitment of IL12RB1.
-------------------	---

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA