

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

Cat. No.:	HY-P73193
Synonyms:	IL-23 p19/IL-12 p40; IL23; IL-23A; Interleukin 23; SGRF
Species:	Human
Source:	HEK293
Accession:	Q9NPF7 (R20-P189)&P29460 (I23-S328)
Gene ID:	51561&3593
Molecular Weight:	Approximately 55.8 kDa

### PROPERTIES

#### AA Sequence

IL - 23 A :

RAVPGGSSPA	WTQCQQLSQK	LCTLAWSAHP	LVGHMDLREE
GDEETTNDVP	HIQCGDGDGP	QGLRDNSQFC	LQRIHQGLIF
YEKLLGSDIF	TGEPSELLPDS	PVGQLHASLL	GLSQLLQPEG
HHWETQQIPS	LSPSQPWQRL	LLRFKILRSL	QAFVAVAAARV
FAHGAATLSP			

IL - 12 B :

IWELKKDVY	VVELDWYPDA	PGEMVVLTC	TPEEDGITWT
LDQSSEVLGS	GKTLTIQVKE	FGDAGQYTCH	KGGEVLSHSL
LLLLHKKEDGI	WSTDILKDQK	EPKNKTFLRC	EAKNYSGRFT
CWWLTTISTD	LTFSVKSSRG	SSDPQGVTCG	AATLSAERVR
GDNKEYEYSV	ECQEDSACPA	AEESLPIEVM	VDAVHKLKYE
NYTSSFFIRD	IIKPDPPKNL	QLKPLKNSRQ	VEVSWEYPDT
WSTPHSYFSL	TFCVQVQGKS	KREKKDRVFT	DKTSATVICR
KNASISVRAQ	DRYYSSSWSE	WASVPCS	

Biological Activity	Measured by its ability to induce IL17 secretion by mouse splenocytes and the ED <sub>50</sub> is 0.2-15ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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

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