

# Recombinant Mouse IL-23/IL-12B&IL-23A Protein

Catalog No.: RP02928LQ Recombinant

# **Sequence Information**

 Species
 Gene ID
 Swiss Prot

 Mouse
 16160&8343
 Q9EQ14&Q6

 0
 0837

Tags No tag

Synonyms

IL-23 p19/IL-12 p40; IL23; IL-23; IL-23p19/IL-12p40; interleukin 23; JKA3 induced upon T-cell activation; MGC79388; SGRF;

#### **Product Information**

Source Purification
HEK293 > 95% by Tris-Bis

PAGE;> 95% by SEC-HPLC

**Endotoxin** 

< 1 EU/µg of the protein by LAL method.

#### **Formulation**

 $0.22 \mu m$  filtered solution of PBS, pH 7.4.

#### Reconstitution

# Background

Interleukin 23 (IL-23) is a heterodimeric cytokine composed of two disulfide-linked subunits, a p19 subunit that is unique to IL-23, and a p40 subunit that is shared with IL-12 (1-5). The p19 subunit has homology to the p35 subunit of IL-12, as well as to other single chain cytokines such as IL-6 and IL-11. The p40 subunit is homologous to the extracellular domains of the hematopoietic cytokine receptors. Mouse p19 cDNA encodes a 196 amino acid residue (aa) precursor protein with a putative 19 aa signal peptide and 177 aa mature protein. Human and mouse p19 share 70% aa sequence identity. Although p19 is expressed by activated macrophages, dendritic cells, T?cells, and endothelial cells, only activated macrophages and dendritic cells express p40 concurrently to produce IL-23. The functional IL-23 receptor complex consists of two receptor subunits, the IL-12 receptor beta 1 subunit (IL-12 R beta 1) and the IL-23specific receptor subunit (IL-23 R). IL-23 has biological activities that are similar to, but distinct from IL-12. Both IL-12 and IL-23 induce proliferation and IFN-gamma production by human T?cells. While IL-12 acts on both na?ve and memory human Tnbsp;cells, the effects of IL-23 is restricted to memory T?cells. In mouse, IL-23 but not IL-12, has also been shown to induce memory T?cells to secret IL-17, a potent proinflammatory cytokine. IL-12 and IL-23 can induce IL-12 production from mouse splenic DC of both the CD8- and CD8+ subtypes, however only IL-23 can act directly on CD8+ DC to mediate immunogenic presentation of poorly immunogenic tumor/self peptide.

### **Basic Information**

### **Description**

Recombinant mouse IL-23/IL-12B&IL-23A Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Met23-Ser335) of mouse IL-23/IL-12B&IL-23A (Accession #) fused with additional amino acid free.

### **Bio-Activity**

Recombinant mouse IL-23 and human TGF- $\beta$ 1(Cat. RP01458) were used to induce the mouse T cells differentiate into Th17 cells. Flow cytometry was used to detect the expression of IL-17A. Results showed that Th17 cells were induced successfully.(Customer Feedback Data)

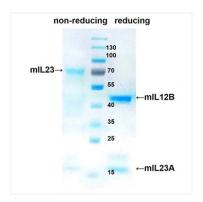
## Storage

Store at  $\leq$ -70°C, stable for 12 months after receipt. Store at  $\leq$ -70°C, stable for 3 months under sterile conditions after opening. Please minimize freeze-thaw cycles. Avoid repeated freeze/thaw cycles.

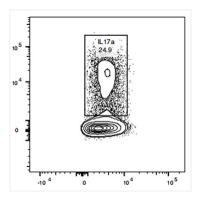
#### **Contact**

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# **Validation Data**



Recombinant Mouse IL-23/IL-12B&IL-23A Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 70 /40-55 kDa&15-25kDa.



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