

Active Recombinant Mouse Il23r, His-tagged

Cat. No. Il23r-5658M **Lot. No.** (See product label)

SPECIFICATION

Product Overview A DNA sequence encoding the mouse IL23A (Q9EQ14) (Met1-Ala196) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 1; A DNA sequence encoding mouse IL12B (P43432) (Met1-Ser335) was fused with a polyhistidine tag at the C-terminus, constructed the plasmid 2. The two plasmids were co-expressed and the mouse IL23 heterodimer was purified.

Species Mouse

Source Human Cells

ProteinLength 1-196;1-335 a.a.

Description Interleukin-23 subunit alpha, also known as IL-23 subunit alpha, IL-23-A, Interleukin-23 subunit p19, IL-23p19 and IL23A, is a secreted protein which belongs to the IL-6 superfamily. IL-23A associates with IL12B to form the IL-23 interleukin, an heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues. IL-23 binds to an heterodimeric receptor complex composed of IL12RB1 and IL23R, activates the Jak-Stat signaling cascade, stimulates memory rather than naive T-cells and promotes production of proinflammatory cytokines. IL-23 induces autoimmune inflammation and may be responsible for autoimmune inflammatory diseases and may be important for tumorigenesis. Interleukin-12 subunit beta, also known as cytotoxic lymphocyte maturation factor 40 kDa subunit, NK cell stimulatory factor chain 2, NKSF2 and IL12B, is secreted protein which belongs to the type I cytokine

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receptor family and Type 3 subfamily. IL12B / NKSF2 is a cytokine that can act as a growth factor for activated T and NK cells, enhance the lytic activity of NK/lymphokine-activated killer cells, and stimulate the production of IFN-gamma by resting PBMC. IL12B / NKSF2 associates with IL-23A to form the IL-23 interleukin, an heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 may constitute with IL-17 an acute response to infection in peripheral tissues.

Predicted N Terminal Val 22 & Met 23

Form Lyophilized from sterile PBS, pH 7.4.

Bio-activity

Measured by its binding ability in a functional ELISA.1. Measured by its ability to bind recombinant rat IL23R-Fc in a functional ELISA.2. Immobilized mouse IL12Bh (m)+mIL23Ah at 10 µg/ml (100 µl/well) can bind human IL23R-Fc. The EC50 of human IL23R-Fc is 0.14-0.35 µg/ml.3. Immobilized mouse IL12Bh (m)+mIL23Ah at 10 µg/ml (100 µl/well) can bind Cynomolgus IL23R-Fc. The EC50 of Cynomolgus IL23R-Fc is 0.05-0.11 µg/ml.

Molecular Mass

The recombinant mouse IL23 (mouse IL23A&IL12B Heterodimer) comprises 510 (186+324) amino acids and has a calculated molecular mass of 58.3 (21.1+ 37.2) KDa. The apparent molecular mass of the recombinant protein is approximately 47,45 and 26 KDa respectively in SDS-PAGE under reducing conditions.

Endotoxin < 1.0 EU per µg of the protein as determined by the LAL method

Purity (33.1+31.5+32.9) % as determined by SDS-PAGE

Stability Samples are stable for up to twelve months from date of receipt at -70°C

Storage Store it under sterile conditions at -70°C. It is recommended that the protein be

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aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Reconstitution A hardcopy of COA with reconstitution instruction is sent along with the products.

GENE INFORMATION

Gene Name [IL23r interleukin 23 receptor \[Mus musculus \]](#)

Official Symbol IL23r

Synonyms IL23R; interleukin 23 receptor; interleukin-23 receptor; IL-23 receptor; IL-23R;

Gene ID [209590](#)

mRNA Refseq [NM_144548](#)

Protein Refseq [NP_653131](#)

Pathway Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;

Function interleukin-23 binding; interleukin-23 receptor activity; receptor activity;

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