Mouse IL-23 Recombinant Protein, eBioscience™

Product Details	
Size	10 µg
Species	Mouse
Expression system	Insect cells
Amino acid sequence	Heterodimeric, mouse p40, amino acids Met1-Ser355 (Accession # NM_008352), and mouse p19, amino acids Met1-Ala196 (Accession # AF301619)
Molecular weight	55.6 kDa
Class	Recombinant
Type	Protein
Purity	>98% by SDS-PAGE
Endotoxin concentration	<0.01 ng/µg
Activity	ED50 < 625 pg/mL; as measured by the induction of IL-17A in mouse splenocytes.
Conjugate	Unconjugated
Form	Liquid
Concentration	0.1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 6.0, with 1% BSA
Contains	no preservative
Storage conditions	-80°C

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-dependent	-
ELISA (ELISA)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	-
Control (Ctrl)	Assay-Dependent	-
Miscellaneous PubMed (Misc)	-	9 Publications

Product Specific Information

Description: IL-23 is a heterodimeric cytokine composed of the p40 subunit of IL-12 disulfide-linked with a protein p19. p19, like p35 of IL-12, is biologically inactive by itself. IL-23 interacts with IL-12Rbeta1 and an additional, novel beta2-like receptor subunit with STAT4 binding domain, termed IL-23R. IL-23 is secreted by activated mouse and human dendritic cells. Biological activities of mouse IL-23 are distinct from those of mouse IL-12. Mouse IL-23 was found not to induce significant amounts of IFN-gamma. Mouse IL-23 does induce strong proliferation of memory T cells (but not naive T cells), whereas IL-12 has no effect on memory cells. Additionally, mouse IL-23 (but not IL-12) can activate mouse memory T cells to produce the proinflammatory cytokine IL-17. Human IL-23 has biological properties which are less distinct from human IL-12; human IL-23 induces proliferation of memory T cells and induces moderate levels of IFN-gamma production by naive and memory T cells, as compared to IL-12.

Applications Reported: Recombinant mouse IL-23 is biologically active.

Applications Tested: The ED50 of this protein, as measured by IL-17A induction in mouse splenocytes, is less than or equal to 625 pg/mL. This corresponds to a specific activity of greater than 1.5 x 10e6 Units/mg.

Source: Insect cells infected with baculovirus: mouse p40, amino acids met 1-Ser 355, accession # NM_008352 was co-

expressed with mouse p19, amino acids met 1-Ala 196, accession # AF301619.

Bioactivity: The ED50 of this protein, as measured by IL-17A induction in mouse splenocytes, is less than or equal to 625 pg /mL. This corresponds to a specific activity of greater than 1.5 x 10e6 Units/mg.

Endotoxin: Less than 0.01 ng/ug cytokine as determined by the LAL assay. Purity: >98% as determined by SDS-PAGE.

Molecular Weight: The heterodimer of p40, amino acids met23-ser335, cystine-linked to p19, amino acids leu 20-ala 196, has a predicted molecular mass of 55,616. On non-reducing SDS-PAGE the heterodimeric cystine-linked protein migrates as a 60 kDa protein. The DTT reduced protein migrates as 43 kDa and 21 kDa polypeptides.

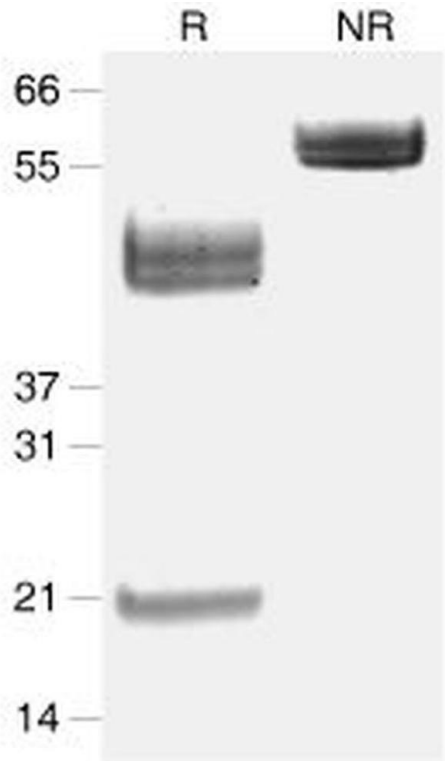
Storage and handling: For best recovery, quick-spin vial prior to opening. Use in a sterile environment.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For Mouse IL-23 Recombinant Protein, eBioscience™



Mouse IL-23 Protein (14-8231-63) in WB
Under non-reducing conditions on SDS-PAGE, Mouse IL-23 Recombinant Protein migrates as a 60 kDa protein (Lane NR). The DTT-reduced Mouse IL-23 Recombinant Protein migrates as 43 kDa and 21 kDa polypeptides (Lane R).

9 References

Miscellaneous PubMed (9)

Frontiers in immunology

ATF3 Sustains IL-22-Induced STAT3 Phosphorylation to Maintain Mucosal Immunity Through Inhibiting Phosphatases.

Authors: Glal D,Sudhakar JN,Lu HH,Liu MC,Chiang HY,Liu YC,Cheng CF,Shui JW

Year
2019

Cellular and molecular gastroenterology and hepatology

Toll-Like Receptor 7 Agonist-Induced Dermatitis Causes Severe Dextran Sulfate Sodium Colitis by Altering the Gut Microbiome and Immune Cells.

Authors: Kiyohara H,Sujino T,Teratani T,Miyamoto K,Arai MM,Nomura E,Harada Y,Aoki R,Koda Y,Mikami Y,Mizuno S, Naganuma M,Hisamatsu T,Kanai T

Year
2019

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