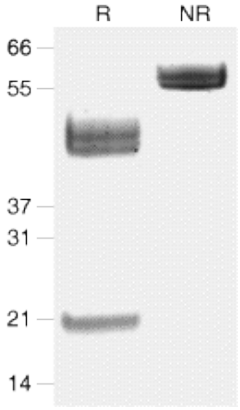
# Mouse IL-23 Recombinant Protein

**Catalog Number:** 14-8231
**Also Known As:**Interleukin-23, IL23, p40, p19
**RUO: For Research Use Only. Not for use in diagnostic procedures.**




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).

## Product Information

**Contents:** Mouse IL-23 Recombinant Protein
REF **Catalog Number:** 14-8231
**Handling Conditions:** For best recovery, quick-spin vial prior to opening. Use in a sterile environment
**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
**Molecular Mass:** 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.
**Purity:** > 98% as determined by SDS-PAGE
**Endotoxin Level:** Less than 0.01 ng/ug cytokine as determined by the LAL assay.
**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.

**Formulation:** Sterile liquid; 20mM Phosphate, 0.2M NaCl, pH 6, 1.0% BSA. 0.22 um filtered.
**Temperature Limitation:** Store at less than or equal to -70°C.
LOT **Batch Code:** Refer to Vial
**Use By:** Refer to Vial

## 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-γ. Mouse IL-23 does induce strong proliferation of memory T cells (but not naïve 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-γ production by naïve 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.

## References

Brombacher, F., et al. 2003. Novel IL-12 family members shed light on the orchestration of Th1 responses. Trends Immunol. 24: 207-212.
Oppmann, B., et al. 2000. Novel p19 protein engages IL-12p40 to form a cytokine, IL-23, with biological activities similar as well as distinct from IL-12. Immunity. 13: 715-725.
Aggarwal, S., et al. 2003. IL-23 promotes a distinct CD4 T cell activation state characterized by the production of IL-17. J. Biol. Chem. 278: 1910-1914.

**Related Products**

12-7123 Anti-Mouse IL-12/IL-23 p40 PE (C17.8)
13-7123 Anti-Mouse IL-12/IL-23 p40 Biotin (C17.8)
14-7125 Anti-Mouse IL-12/IL-23 p40 Purified (C15.6)
14-8121 Mouse IL-12 p70 Recombinant Protein
88-7120 Mouse IL-12/IL-23 total p40 ELISA Ready-SET-Go!®
88-7121 Mouse IL-12 p70 ELISA Ready-SET-Go!®
88-7231 Mouse IL-23 (Interleukin-23, IL23) ELISA Ready-SET-Go! Kit (with Pre-Coated Plates)
88-7234 Mouse IL-23 ELISA Ready-SET-Go!® (Discontinued: Please see 88-7230 (2nd generation assay))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