

## Mouse IL-12 p70 Recombinant Protein Carrier-Free


Catalog Number: 34-8121

Also Known As: Interleukin-12, IL12, p70

RUO: For Research Use Only

### Product Information

Contents: Mouse IL-12 p70 Recombinant Protein Carrier-Free

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Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile environment.

Source: Insect cells infected with baculovirus: mouse p40, amino acids met 1-ser 335, (accession # NM\_008352) was co-expressed with mouse p35, amino acids met 1-ala 215, (accession # NM\_008351).

Molecular Mass: The heterodimeric, p40, amino acids met 23-ser 335, cystine linked to p35, amino acids arg 23-ala 215, has a predicted molecular mass of 57,496. On non-reducing SDS-PAGE the heterodimeric cystine-linked protein migrates as a 65 kDa protein. The DTT reduced protein migrates as 43 kDa and 24 kDa polypeptides.

Purity: Greater than 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 IFN gamma induction assay in mouse splenocytes, is less than or equal to 175 pg/mL. This corresponds to a specific activity of greater than or equal to 5.7 x 10<sup>6</sup> Units/mg.

Formulation: Sterile liquid; 10 mM NaH<sub>2</sub>PO<sub>4</sub>, pH 6.0, 300 mM NaCl. 0.22 µm filtered.



Temperature Limitation: Store at less than or equal to -70°C.



Batch Code: Refer to Vial



Use By: Refer to Vial

### Description

Interleukin-12 (IL-12) is a heterodimeric 70 kD (p70) cytokine composed of two covalently linked, glycosylated chains, 40kD (p40) and 35-kD (p35). IL-12 is mainly produced by monocytes, macrophages, and dendritic cells in response to bacterial products such as lipopolysaccharides (LPS), to intracellular pathogens or upon interaction with activated T cells. IL-12 was originally discovered because of its ability to induce interferon-gamma (IFN-γ) production, cell proliferation, and cytotoxicity mediated by natural killer cells and T cells. It is now established that IL-12 also plays a key role in the development of Th1 responses, leading to IFN-γ and IL-2 production. These cytokines can in turn promote T-cell responses and macrophage activation.

eBioscience's recombinant mouse IL-12 p70 is produced in baculovirus-infected insect cells as an authentic heterodimer of precursor p35 and p40 subunits using a dual promoter expression system. It is distinct from other available forms of the protein in that it is expressed as a true heterodimer, as opposed to a single-chain, pseudo-heterodimer in which the subunits are joined by an artificial linker.

### Applications Reported

Recombinant mouse IL-12 p70 is biologically active.

### Applications Tested

The ED50 of this protein, as measured by IFN gamma induction assay in mouse splenocytes, is less than or equal to 175 pg/mL. This corresponds to a specific activity of greater than or equal to 5.7 x 10<sup>6</sup> Units/mg.

### References

Isler, P., et al. 1999. Am. J. Respir. Cell Mol. Biol. 20: 270-278.

### Related Products

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!®

88-7921 Mouse IL-12 (Interleukin-12, IL12) p70 ELISA Ready-SET-Go! Kit (See replacement item BMS6004)

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