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Mouse IL-12 p70 Recombinant Protein

Catalog Number: 14-8121
Also Known As: Interleukin-12, IL12, p70
RUO: For Research Use Only

Product Information

Contents: Mouse IL-12 p70 Recombinant Protein
REF **Catalog Number:** 14-8121
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 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 10e6 Units/mg.

Formulation: Sterile liquid; 10 mM NaH_2PO_4, pH 6.0, 300 mM NaCl, with 1.0% BSA. 0.22 µm filtered.
Temperature Limitation: Store at less than or equal to -70°C.
LOT **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-g) 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-g 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 is biologically active and can be used as a standard for p40 or p70 ELISA.

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 10e6 Units/mg.

References

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

Related Products

13-7123 Anti-Mouse IL-12/IL-23 p40 Biotin (C17.8)
14-7122 Anti-Mouse IL-12 p35 Purified (C18.2)
14-7125 Anti-Mouse IL-12/IL-23 p40 Purified (C15.6)
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