
Human IL-12 p70 Recombinant Protein


Catalog Number: 14-8129

Also Known As: Interleukin-12, IL12, p70

RUO: For Research Use Only

Product Information

Contents: Human IL-12 p70 Recombinant Protein

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

Source: Insect cells infected with baculovirus: human p40, amino acids met 1-ser 328, (accession # NM_002187) was co-expressed with human p35, amino acids met 1-ser-253, (accession # NM_000882).


Molecular Mass: The heterodimeric, p40, amino acids ile 23-ser 328, cystine linked to p35, amino acids arg 57-ser 253, has a predicted molecular mass of 57,239. On non-reducing SDS-PAGE the heterodimeric cystine-linked protein migrates as a 67 kDa protein. The DTT reduced protein migrates as 43 kDa and 25 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: Measured by dose-dependent induction of proliferation of PHA-activated human peripheral blood mononuclear cells. The ED₅₀ is 100 pg/ml, corresponding to a specific activity of 1.0 x 10⁷ Units/mg.

Formulation: Sterile liquid; 20 mM NaH₂PO₄, pH 6.0, 0.2 M NaCl, with 1.0% BSA. 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.

Applications Reported

Recombinant human IL-12 is biologically active and has been reported for use in ELISA and bioassay.

Applications Tested

This recombinant human IL-12 p70 has been tested by sandwich ELISA using the human IL-12 p70 ELISA (B-T21/C8.6). This IL-12 p70 protein has been tested by bioassay, yielding an ED₅₀ of 100 pg/ml, corresponding to a specific activity of approximately 1x10⁷ Units/mg.

References

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

Related Products

14-8231 Mouse IL-23 Recombinant Protein

14-8239 Human IL-23 Recombinant Protein

88-7234 Mouse IL-23 ELISA Ready-SET-Go!®

88-7237 Human IL-23 ELISA Ready-SET-Go!® Set