

## Product Information

Contents: Carrier-Free Recombinant Human IL-12 p70

Catalog Number: 34-8129

Sizes: 100 ug, 500 ug

Formulation: Sterile liquid; 20 mM NaH<sub>2</sub>PO<sub>4</sub>, pH 6.0, 0.2 M NaCl, with no carriers or stabilizers. 0.22 µm filtered.

Storage Conditions: For greatest stability, keep concentration of primary stock at or above 10 µg/ml. For long term storage, aliquot into polypropylene vials (volumes of 20 µl or greater) and store at or below -80°C. Avoid repeated freeze/thaw cycles.

Handling Conditions: For best recovery, always quick-spin vial prior to opening. For dilution of current stock, always include carrier protein (1% BSA or 10% FBS) in the buffered saline diluent.

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 ED<sub>50</sub> is 100 pg/ml, corresponding to a specific activity of 1.0 x 10<sup>7</sup> Units/mg.

### Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
14-8129	Human IL-12 p70 Recombinant Protein	N/A	N/A	BA ELISA std
34-8129	Human IL-12 p70 Recombinant Protein Carrier-Free	N/A	N/A	BA ELISA std
39-8129	Human IL-12 p70 Single-Use ELISA RSG Standard	N/A	N/A	ELISA

### Flow Cytometry Product Notes:

Test Sizes: To accommodate multicolor flow cytometry, eBioscience is in the process of reducing test size volumes from 20 µl to 5 µl. Please check your antibody vial for the recommended test size.

Fluorochrome Replacements: eBioscience is in the process of replacing all Pacific Blue® and APC-Alexa Fluor® 750 conjugated products with eFluor™ 450 and APC-eFluor™ 780 conjugated products, respectively.

### Custom Product Requests

Need a custom product? Download the Custom Product Request Form and submit completed form to [customs@ebioscience.com](mailto:customs@ebioscience.com).

Questions? Please consult our answers to frequently asked questions at <http://www.ebioscience.com/faq>.

## 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

For research use only, not for diagnostic or therapeutic use. 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 ED<sub>50</sub> of 100 pg/ml, corresponding to a specific activity of approximately 1x10<sup>7</sup> Units/mg.

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#### References

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

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#### Related Products

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- Cat. 88-7126 Human IL-12 (Interleukin-12, IL12) p70 ELISA Ready-SET-Go!
- Cat. 88-7176 Human IL-17A (Interleukin-17A, IL17A) ELISA Ready-SET-Go!
- Cat. 88-7237 Human IL-23 (p19/p40) (Interleukin-23, IL23) ELISA Ready-SET-Go! Set
- Cat. 34-8239 Carrier-Free Recombinant Human IL-23 (Interleukin-23, IL23)

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