

Product Data Sheet

Recombinant Mouse IL-12 (p70) (carrier-free)

Catalog # / Size: 577002 / 10 µg
577004 / 25 µg
577006 / 100 µg
577008 / 500 µg

Source: Expressed in Sf9 cells as secreted protein (p40: Accession# NM_008352, p35: Accession#NM_008351).

Molecular Mass: The mL-12 consists of two subunits linked via a disulphide bond: P40 (Accession# P43432: Met23-Ser335) and P35 (Accession# NP_032377: Arg23-Ala215). The total predicted molecular weight is 57.48 kD. The non-reduced protein migrates at approximately 55 kD and the DTT-reduced protein produces two bands at approximately 40 kD and 24 kD by SDS-PAGE.

Purity: 95%, as determined by Coomassie stained SDS-PAGE.

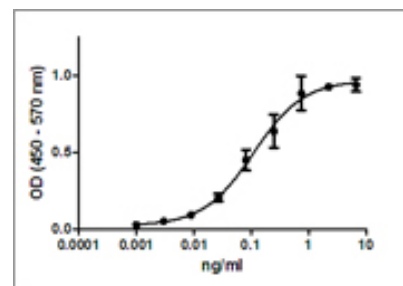
Endotoxin Level: Less than 0.01 ng per µg cytokine as determined by the LAL method.

Activity: ED₅₀ = 0.10 to 0.20 ng/ml, corresponding to a specific activity of 1.0 - 0.5 x 10⁷ units/mg, as determined by the dose dependent stimulation of IFN γ production by mouse splenocytes.

Preparation: 10-100 µg sizes are bottled at 200 µg/mL, 500 µg sizes and larger are bottled at the concentration indicated on the vial.

Formulation: The protein was 0.22 µm filtered in 10 mM NaH₂PO₄, 150 mM NaCl, pH 7.2.

Storage: Unopened vial can be stored at -20°C for six months or at -70°C for one year. For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10 µg/mL in buffer containing carrier protein such as 1% BSA or HSA or 10% FBS. For long term-storage, aliquot into polypropylene vials and store in a manual defrost freezer. **Avoid repeated freeze/thaw cycles.**



Mouse splenocytes IFN γ production induced by mouse IL-12.

Applications:

Applications: Bioassay

Description: IL12 (p70) is a disulfide-linked heterodimer composed of unrelated p40 (glycosylated) and p35 subunits. IL-12 acts as a growth factor for activated human T and NK cells, enhance the lytic activity of human NK cells, and stimulate the production of IFN γ , by resting human PBMC. IL-12R is formed by two chains, IL-12R β 1 and IL-12R β 2. IL-12R β 1 is associated with the Janus kinase (Jak) Tyk2 and binds IL-12 p40; IL-12R β 2 is associated with Jak2 and binds either the heterodimer or the p35 chain. Signaling through the IL-12 receptor complex induces phosphorylation, dimerization, and nuclear translocation of several signal transducer and activator of transcription (STAT) family members (STAT1, 3, 4, 5), but most of the biological responses to IL-12 have been attributed to STAT4.

Antigen References:

1. Schoenhaut DS, *et al.* 1992. *J. Immunol.* 148:3433.
2. Manetti R, *et al.* 1994. *J. Exp. Med.* 179:1273.
3. Ireland D, *et al.* 2005. *Viral Immunol.* 18:397.
4. Moreno SE, *et al.* 2006. *J. Immunol.* 177:3218.
5. Lyakh L, *et al.* 2008. *Immunol. Rev.* 226:112.
6. Theiner G, *et al.* 2008. *Mol. Immunol.* 45:244.

Related Products: **Product**
Recombinant Mouse IL-12 (p70) (ELISA Std.)

Clone

Application
ELISA



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