

Mouse IL-12 (Interleukin-12) - Purified

Alternate names:	IL12
Catalog No.:	PA1089
Quantity:	2 µg
Concentration:	1 mg/ml (prior to lyophil.)
Background:	IL-12 is a heterodimeric cytokine that stimulates the production of interferon gamma from T-cells and natural killer cells, and also induces differentiation of Th1 helper cells. It is an initiator of cell-mediated immunity.
Species:	Mouse
Source:	Insect cells
Format:	State: Lyophilized Purity: >95.8% Purified by proprietary chromatographic techniques, sterile filtered purity > 95.0 % as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Reconstitution: Sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Description:	Interleukin-12 Mouse Recombinant produced in Sf9 insect cells is a glycosylated disulfide linked heterodimeric polypeptide containing 506 amino acids. AA Sequence: The sequence of the first five N-terminal amino acids was determined and found to be Arg-Val-Ile-Pro-Val at the p35 subunit and Met-Thr-Glu-Leu-Glu at the p40 subunit. Biological Activity: The ED50 was determined by the stimulation of IFN-gamma production by murine splenocytes co-stimulated with IL-12 and was found to be < 0.1ng/ml, corresponding to a specific activity of > 1 x 10 ⁷ IU/mg. Molecular weight: 75 kDa 75 kDa comprised of disulfide-bonded 35 kDa (p35) and 40 kDa (p40) subunits.
Storage:	Lyophilized product is stable at room temperature for one month, should be stored desiccated below -20 °C. Upon reconstitution it should be stored at 2 - 8 °C up to one week and for future use below -20 °C. For long term storage it is recommended to add a carrier protein (0.1 % HSA or BSA). Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Chang HD, Radbruch A. The pro- and anti-inflammatory potential of interleukin-12. Ann N Y Acad Sci. 2007 Aug;1109:40-6. PubMed PMID: 17785289. 2. Del Vecchio M, Bajetta E, Canova S, Lotze MT, Wesa A, Parmiani G, et al. Interleukin-12: biological properties and clinical application. Clin Cancer Res. 2007 Aug 15;13(16):4677-85. PubMed PMID: 17699845.

3. Ahuja SS, Estrada CA, Lindsey ML. Crosstalk between cytotoxic T-lymphocyte associated antigen-4 and interleukin-12 in cytotoxic T-lymphocyte-mediated myocarditis: adding another link to the chain. *Circ Res.* 2007 Aug 3;101(3):218-20. PubMed PMID: 17673678.
4. Figueiredo F, Commodaro AG, de Camargo MM, Rizzo LV, Belfort R. NK1.1 cells downregulate murine endotoxin-induced uveitis following intraocular administration of interleukin-12. *Scand J Immunol.* 2007 Aug-Sep;66(2-3):329-34. PubMed PMID: 17635810.
5. Zhu S, Waguespack M, Barker SA, Li S. Doxorubicin directs the accumulation of interleukin-12 induced IFN gamma into tumors for enhancing STAT1 dependent antitumor effect. *Clin Cancer Res.* 2007 Jul 15;13(14):4252-60. PubMed PMID: 17634555.
6. Wulff H, Krieger T, Krüger K, Stahmer I, Thaiss F, Schäfer H, et al. Cloning and characterization of an adenoviral vector for highly efficient and doxycycline-suppressible expression of bioactive human single-chain interleukin 12 in colon cancer. *BMC Biotechnol.* 2007 Jun 26;7:35. PubMed PMID: 17594499.