

IL-12

Interleukin 12

human, recombinant, Chinese Hamster Ovary (CHO) cells

Cat. No.	Amount
PR-234	10 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Lyophilized. IL-12 was lyophilized from 0.2µm filtered 0.5mg/ml PBS pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized IL-12 in bidest H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Activity

The ED₅₀ for the ability to stimulate the proliferation of PHA-activated human T lymphoblasts is 0.3-0.5 ng/ml.

Molecular Weight

75 kDa

Purity

≥ 95% by SDS-PAGE and RP-HPLC

Description

Human recombinant Interleukin-12 produced in CHO is a glycosylated disulfide linked heterodimeric polypeptide containing 503 amino acids and having a Molecular Weight of 75 kDa comprised of disulfide-bonded 35 kDa (p35) and 40 kDa (p40) subunits.

Interleukin-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.

The IL-12 is purified by proprietary chromatographic techniques.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and found to be Arg-Asn-Leu-Pro-Val at the p35 subunit and Ile-Trp-Glu-Leu-Lys at the p40 subunit.

Selected References:

Sorensen *et al.* (2010) IL-12 suppresses vascular endothelial growth factor receptor 3 expression on tumor vessels by two distinct IFN-gamma-dependent mechanisms. *J. Immunol.*

184:1858.

Feng *et al.* (2005) Morphine withdrawal sensitizes mice to lipopolysaccharide: elevated TNF-alpha and nitric oxide with decreased IL-12. *J Neuroimmunol.* **164**:57.

Torre *et al.* (2002) Transforming growth factor-beta, interleukin (IL)-18, and IL-12: effect on the clinical course and complications of Plasmodium falciparum malaria. *J Infect Dis.* **187**:338.

Scott (1993) IL-12: initiation cytokine for cell-mediated immunity. *Science* **260**:496.