

Recombinant Human Interleukin-12

#R00049

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

IL-12 is a heterodimeric cytokine of disulfide-linked p35 and p40 subunits. It is secreted by monocytes, macrophages, dendritic cells, neutrophils, Langerhans cells, keratinocytes, microglia, and peripheral B cells. In humans, the p40 subunit can also associate with a p19 subunit to form IL-23. IL-12 signals through a receptor complex consisting of IL-12 R beta 1 and IL-12 R beta 2. It promotes Th1 immune responses by inducing IFN-gamma secretion from NK cells, T cells, and macrophages and by enhancing NK cell and T cell mediated cytotoxicity. It also cooperates with IL-18 in the generation of Th1 memory cells.

AA Sequence

HuIL-12p40:Ile23-Ser328;Accession#P29460,
HuIL-12p35:Arg23-Ser219;Accession#P29459

Reconstitution

We recommend that this vial be briefly centrifuged prior

to opening to bring the contents to the bottom. Reconstitute in sterile PBS to a concentration of 0.1 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriately buffered solutions.

Product Specification

Synonyms	Natural killer cell stimulatory factor chain 2, NKSF2, Cytotoxic lymphocyte maturation factor 40 kDa subunit, CLMF p40
Accession	P29459
GeneID	3592
Species	Human
Source	Sf 21 Cells
Molecular Weight	Apparent molecular mass of 60 kDa in SDS-PAGE under non-reducing conditions, 41 kDa and 29 kDa under reducing conditions, a disulfide-linked heterodimer consisting of the 306 amino acid rHuIL-12 p40 and the 197 amino acid rHuIL-12 p35 subunits.
Purity	> 97 % by SDS-PAGE.

Biological Activity	Measured in a cell proliferation assay using PHA-stimulated human T lymphoblasts. The ED ₅₀ for this effect is 0.01-0.05 ng/mL. The specific activity of rHuIL-12 is approximately 1.1 × 10 ⁴ units/μg, which is calibrated against rHuIL-12 WHO Standard (NIBSC code: 95/544).	
Physical Appearance Formulation	Sterile Filtered White lyophilized (freeze-dried) powder. Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.2.	
Endotoxin	Less than 1.0 EU/μg of rHuIL-12 as determined by LAL method.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at	the temperature recommended below.