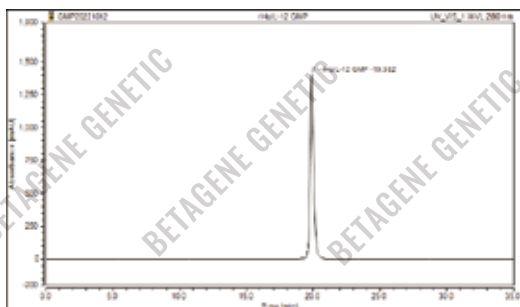


RECOMBINANT HUMAN IL-12 TAG-FREE GMP

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Gene ID	3592
Description	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.
Catalog Number	GE11.1/GE11.2
Unit Size	10µg/50µg
Source	CHO
Molecular Weight	Approximately 75kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.
AA Sequence	p35 Subunit: RNLPVATPDGMFPCLLHHSQNLRLRAVSNMLQKARQLEFYPTCTSEEIDHEDITKDKTSTVEACLPLELTKNESCLNSRETSFITNG SCLASRKTSFMMALCLSSYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNLMAVIDELMQALNFNSETVPQKSSLEEDFYKTKIKLCILLHAFRI RAVTIDRVMSYLNAS p40 Subunit: IWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLTQSSSEVLGSGKTLTIQVKEFGDAGQYTCHKGGEVLSHSLLLHKK EDGIWSTDILKDKQKEPKNKTLRCEAKNYSGRFTCWWLTTISTDLTFSVKSSRGSSDPQGVTCGAATLSAERVRGDNKEYEYSVECQEDSACPAA EESLPIEVMVDAVHKLKYENYSSFFIRDIIPDPPKNLQLKPLKNSRQVEVSWEYPTWSTPHSYFSLTFCVQVQGKSKREKDRVFTDKTSATVI CRKNASISVRAQDRYSSSWSEWASVPCS
Purity (SEC-HPLC)	> 95%
Purity (SDS-PAGE)	> 98%
Biological Activity	The ED ₅₀ as determined by a cell proliferation assay using PHA-activated human T lymphoblasts is < 0.05 ng/mL, corresponding to a specific activity of > 2.0 × 10 ⁷ Units/mg.
Host Cell DNA Residue	< 0.02 ng/µg of protein tested by DNA Fluorescent Staining method.
Host Cell Protein Residue	< 0.5 ng/µg of protein tested by ELISA.
Formulation	Lyophilized from a 0.2µm filtered solution in PBS pH7.4.
Sterility	Negative
Endotoxin	< 0.01EU/µg as determined by LAL gel-clot method.
Mycoplasma	Negative
Reconstitution	Before use this product, please read the direction below carefully. 1. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. 2. Reconstitute in a sterile aqueous buffer to an appropriate concentration. 3. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Stability & Storage	For long term storage, the product should be stored ≤ -20 °C. Please avoid repeated freeze-thaw cycles after reconstitution. 1. At least 24 months from date of receipt, ≤ -20 °C as supplied; 2. 1 month, 2 to 8 °C under sterile conditions after reconstitution; 3. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended.

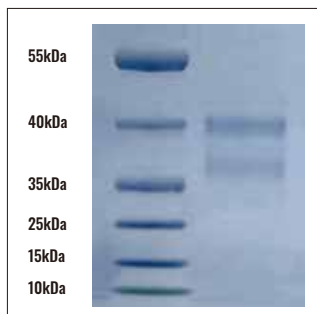
DATA



Purity of Recombinant Human IL-12

HPLC

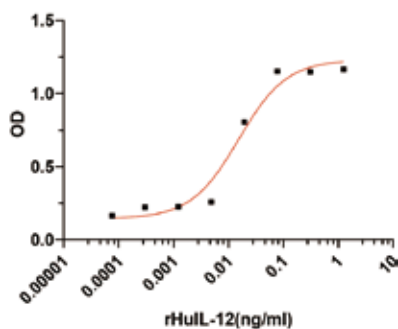
HPLC analysis of Recombinant Human IL-12. The major peak corresponds to the calculated purity of > 95%.



Purity of Recombinant Human IL-12

SDS-PAGE

2 µg/lane of Recombinant Human IL-12 was resolved with SDS-PAGE under reducing (R) condition and visualized by Coomassie® Blue staining, showing R band(s) at 40 and 35kDa, corresponding to the subunit molecular weights of P40 and P35.



Bioactivity of Recombinant Human IL-12

The ED₅₀ as determined by a cell proliferation assay using PHA-activated human T lymphoblasts is < 0.05 ng/mL, corresponding to a specific activity of ≥ 2.0 × 10⁷ Units/mg.

CONTENTS

Product	Cat. No.	Amount	Storage	Shelf life
Recombinant Human IL-12 (GMP-Grade)	GE11.1 GE11.2	10µg 50µg	≤-20°C	24 months

LIMITED WARRANTY

BETAGENE™ Genetic and/or its affiliate(s) warrant their products as set forth in the BETAGENE Genetic' General Terms and Conditions of Sale. If you have any questions, please contact our staff at SALES@betagene.com.

The information in this guide is subject to change without notice.

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