

CHASELECTION

Recombinant Human Interleukin-12/ IL-12Cata
log Number: CYG071F0XXX,
CY071F0XXX

Synonym:

Interleukin-12, NKSF, CTL MaturationFactor (TC MF), Cytotoxic Lymphocyte MaturationFactor (CL MF), TSF

Source: CHO cells proteinStr

Structure:

The protein carries no tag.

Assession Number: p35: P29459 p40 : P29460I

Gene ID: p35: 3592 p40: 3593

AA sequence:

p35 Subunit:

RNLPVATPDGPMFPCLLHHSQNLLRAVSNNMLQKARQTLE
FYPTSEEIDHEDITKDKTSTVEACLPLELTKNESCLNS
RETSFITNGSCLASRKTSFMMALCL
SSIIYEDLKMYQVEFKTMNAKLLMDPKRQIFLDQNMLA
VIDELMQALNFNSETVPQKSSLEEDFYKTKIKLCILLH
AFRIRAVTIDRVMSYLNAS

p40 Subunit:

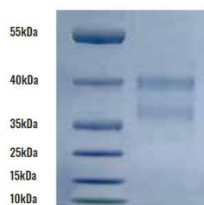
IWELKKDVYVVELDWYPDAPGEMVVLTCDTPEEDGIT
WTLDQSSEVLGSGKTLTIQVKEFGDAGQYTCHKGGEVL
SHSLLLHKKEDGIWSTDILKDQKEPKNKTFLRCEAKN
YSGRFTCWWTITISTDLTFSVKSSRGSSDPQGVTCGAAT
LSAERVGRDNKEYEYSVEQCEDSACPAEESLPIEVMV
DAVHKLKYENYTSSFFIRDIKPDPPKNLQLKPLKNSRQ
VEVSWEYPTDWTSTPHSYFSLTFCVQVQGKSKREKKDR
VFTDKTSATVICRKNASISVRAQDRYSSSWSEWASVPC
S

Molecular Weight :

Approximately 75kDa, consisting of a 306 amino acid residue p40 subunit and a 197 amino acid residue p35 subunit.

Purity: ≥95 % as determined by SDS-PAGE & HPLC

SDS-PAGE



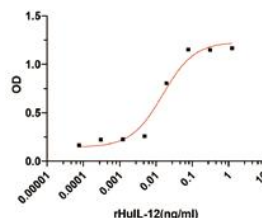
Recombinant human IL-12 was separated by SDS-PAGE under reduced (R) conditions and showed R-bands at 40 and 35 kDa, corresponding to the molecular weights of the subunits of P40 and P35, respectively

Endotoxin: < 0.1 EU/μg

Formulation:

PBS pH7.4, 0.2μm Membrane filtration for sterilization

Biological Activity:



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.

Reconstitution:

1. Before opening, please briefly centrifuge the contents to the bottom;
2. It is recommended to initially dissolve in sterile deionized water to an appropriate concentration (recommended concentration is 0.1-1 mg/ml);
3. If the above storage liquid needs to be stored, it should be divided into small quantities and equal parts (not less than 20 μl). If further dilution is required, it should be stored in a suitable buffer containing carrier protein.

Shipping & Storage:

The product is shipped with blue ice.

If long-term storage is required, this product should be stored at ≤ -20 °C, please avoid repeated freeze-thaw cycles.

1. Dry powder can be stored at ≤ -20 °C for at least 24 months;
2. After reconstitution, it can be stored for 1 month under sterile conditions at 2-8 °C ;
3. After reconstitution, it can be stored for 12 months under sterile conditions at -20~-70°C.

Introduction:

IL-12 is a heterodimeric cytokine containing p35 and p40 subunits, secreted by monocytes, macrophages, dendritic cells, neutrophils, Langerhans cells, keratinocytes, microglia, and peripheral B cells. In humans, the p40 subunit can also bind to the p19 subunit to form IL-23. IL-12 transmits signals through receptor complexes composed of IL-12R₁ and IL-12R₂. It promotes Th1 immune response by inducing the secretion of IFN-γ by NK cells, T cells, and macrophages, as well as enhancing NK and T cell-mediated cytotoxicity. In general, it also collaborates with IL-18 to produce Th1 memory cells.