

Recombinant human IL-12

CHO expressed human interleukin-12 with HSA

Catalog # rcyc-hil12

For research use only, not for diagnostic or therapeutic use

Version # 16C02-MM

PRODUCT INFORMATION

Content:

- 10 µg of recombinant human IL-12 provided as a white lyophilized powder
- 1.5 ml endotoxin-free water

Storage and stability:

- Recombinant human IL-12 is shipped at room temperature. Upon receipt it should be stored at -20 °C.
- Upon resuspension, prepare aliquots of recombinant human IL-12 and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months.

Note: Avoid repeated freeze-thaw cycles.

Quality control:

- Purity greater than 90% as determined by SDS-PAGE
- Endotoxin: Less than 0.1 EU/µg of IL-12 as determined by the LAL method.
- The biological activity has been confirmed using HEK-Blue™ IL-12 cells (see validation data sheet available on our website).

DESCRIPTION

Interleukin-12 (IL-12), also known as IL-12p70, cytotoxic lymphocyte maturation factor (CLMF) and natural killer cell stimulatory factor (NKSF), is primarily produced by dendritic cells and macrophages in response to bacterial pathogens^{1,2}. It promotes Th1 responses and is a powerful inducer of interferon-gamma (IFN-γ). IL-12 is a heterodimeric 70 kDa cytokine composed of two subunits, p35 and p40.

Recombinant human IL-12 is intended for use in cell culture applications. Recombinant human IL-12 produced in Chinese hamster ovary (CHO) cells transfected with a fusion gene encoding the p35 and p40 subunits linked by a decapeptide containing two elastin motifs. These transfected cells produce and secrete biologically active IL-12. Recombinant human IL-12 is purified by size-exclusion chromatography.

1. **Vignali DA. & Kuchroo VK., 2012.** IL-12 family cytokines: immunological playmakers. *Nat Immunol.* 13(8):722-8. 2. **Trinchieri G., 1995.** Interleukin-12: a proinflammatory cytokine with immunoregulatory functions that bridge innate resistance and antigen-specific adaptive immunity. *Annu Rev Immunol.* 13:251-76.

CHARACTERISTICS

Source: Mammalian; Chinese hamster ovary (CHO) cells

Gene Name: IL-12A (subunit p35)

Gene ID: 3592

UniProt ID: P29459

Gene Name: IL-12B (subunit p40)

Gene ID: 3593

UniProt ID: P29460

Molecular mass: ≈ 70 kDa (as determined by SDS-PAGE)

Formulation: Recombinant human IL-12 was lyophilized from a 0.2 µm filtered phosphate buffer solution (pH 7.4) containing human serum albumin (HSA).

Solubility: 100 µg/ml in water

METHOD

Preparation of stock solution (100 µg/ml):

1. Add 100 µl endotoxin-free water (provided) to 10 µg of recombinant human IL-12.
2. Mix by pipetting. Do not vortex.
3. Prepare aliquots of recombinant human IL-12 and store at 4 °C for 1 week or at -20 °C to -80 °C for 12 months. Avoid freeze-thaw cycles.
4. Further dilutions can be prepared in the appropriate aqueous buffer, such as cell culture medium containing serum.

RELATED PRODUCTS

Product	Catalog Code
HEK-Blue™ IL-12 Cells	hkb-il12

TECHNICAL SUPPORT

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