

rec. human Interleukin 12

rHu IL-12

Product	Cat#	Package size
rec. rec. human Interleukin 12 (rHu IL-12)	C6256.0002	2µg
rec. rec. human Interleukin 12 (rHu IL-12)	C6256.0010	10µg
rec. rec. human Interleukin 12 (rHu IL-12)	C6256.0100	100µg

Product description

IL-12 is a heterodimeric cytokine that stimulates the production of IFN-gamma from T-cells and natural killer cells, and also induces differentiation of Th1 helper cells. IL-12 is an initiator of cell-mediated immunity.

Rec. human Interleukin-12 is produced in HEK cells as a glycosylated heterodimer, of a molecular weight of 57kDa.

Synonyms: NKSF, CTL maturation factor (TCMF), Cytotoxic lymphocyte maturation factor (CLMF), TSF, Edodekin-alpha, IL-12.

Source: HEK cells

Purity: >95.0%, determined by reducing SDS-PAGE

Physical Appearance: Sterile filtered lyophilised powder.

Formulation: IL12 was lyophilized from a 0.2µm filtered PBS solution.

Solubility: It is recommended to reconstitute the lyophilized IL12 in sterile PBS containing 0.1% endotoxin-free recombinant HSA.

Stability

Lyophilised rHuIL-12 although stable at room temperature for at least 3 weeks, should be stored at -20°C. Reconstituted rHuIL-12 should be stored at +2°C to +8°C short term (2-7 days) and at -20°C for long term storage. For long term storage it is recommended to add a carrier protein (0.1% HSA).

Please prevent from repeated freeze-thaw cycles.

Biological Activity

The specific activity was determined by the dose-dependent release of IFN-gamma from the human NK92 cell line in presence of 20ng/mL rIL-2.

The EC₅₀ is 0.5ng/mL

Amino acid composition

IL-12 is a heterodimer of IL-12A and IL-12B linked through a disulfide-bond between cysteines in red in sequences below.

IL-12A:

RNLPVATPDGPMFCLHHSQNLLRAVSNNMLQKARQTLEFYPTSEEIDHEDITKDKTSTVEACLPLELTKNESCLNSRETS
FITNGSCLASRKTSFMMALCLSSIEDLKMVQVEFKTMNAKLLMDPKRQIFLDQNMLAVIDELMQALNFNSETVPQKSSLE
EPDFYKTKIKLCILLHAFRIRAVTIDRVMSYLNAS.

IL-12B:

IWELKKDYYVVELDWYPDAPGEMVVLTCDTPEEDGITWTLQDSSEVLGSGKTLTIQVKEFGDAGQYTCHKGGEVLSHSL
LLHKKEDGIWSTDILKDKQEPKNKTLRCEAKNYSGRFTCWWLTITDITFVSVKSSRGSSDPQGVTCGAATLSAERV
DNKEYEYSVEQEDSACPAAEESLPIEVMDAVHKLKYENYTSFFIRDIKPDPPKNLQKPLKNSRQVEVSWEYPTDWS
TPHSYFSLTFCVQVQGKSKREKKDRVFTDKTSATVICRKNASISVRAQDRYSSSWSEWASVPCS.

Usage

This product is for research/laboratory usage only. It may not be used as drug, agricultural or pesticidal product, food additive or household chemical.