

Recombinant Human Interleukin-12HEK (rh IL-12)

Synonyms: NKSF, CTL maturation factor (TCMF), Cytotoxic lymphocyte maturation factor (CLMF), TSF

Introduction: IL-12 is a potent regulator of cell mediated immune responses and it induces IFN- γ production by NK and T cells. It is produced by activated monocytes/macrophage cells, B lymphocytes and connective tissue type mast cells. Among its biological activities IL-12 promotes the growth and activity of activated NK, CD4+ and CD8+ cells and induces the development of IFN- γ producing Th1 cells.

Description: Recombinant human IL-12 produced in HEK cells is a glycosylated heterodimer having a molecular weight of 57 kDa. The rh IL-12 is purified by proprietary chromatographic techniques.

Source: HEK cells

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 μ m filtered solution in PBS.

The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh IL-12 in sterile H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-12 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh IL-12 should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Endotoxicity: The endotoxin level is less than 1 EU / μ g determined by LAL method.

Amino Acid Sequence: RNLPVA TPDPMFPCL HHSQNLLRAV SNMLQKARQT LEFYPCTSEE IDHEDITDKT TSTVEACLPL ELTKNESCLN SRETSFITNG SCLASRKTSF MMALCLSSIY EDLKMYQVEF KTMNAKLLMD PKRQIFLDQN MLAVIDELMQ ALNFNSETVP QKSSLEEPDF YKTKIKLCIL LHAFRIRAVT IDRVMMSYLN A S IWEKK DVYVVELDWY PDAPGEMVVL TCDTPEEDGI TWTLQDQSSEV LGSGKTLTIQ VKEFGDAGQY TCHKGGEVLS HSLLLHKKE DGIWSTDILK DQKEPKNKTFRCEAKNYSG RFTCWWLTTI STDLTFSVKS SRGSSDPQGV TCGAATLSAE RVRGDNKEYE YSVECQEDSA CPAAEESLPI EVMVDAVHKL KYENYTSSFF IRDIKPDPK KNLQLKPLKN SRQVEVSWEY PDTWSTPHSY FSLTFCVQVQ GSKREKKDR VFTDKTSATV ICRKNASISV RAQDRYYSSS WSEWASVPCS

Biological Activity: Determined by dose dependant release of rh IFN-gamma from NK cells in co-stimulation with IL-18 the ED₅₀ was determined to be less than 1 ng/ml, corresponding to a specific activity of 1 x10⁶ IU/mg.

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small	2 μ g	Cat.N°	11349122
medium	10 μ g	Cat.N°	11349123
large	50 μ g	Cat.N°	11349125
x-large	250 μ g	Cat.N°	11349127

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Spreestraße 2; 26169 Friesoythe; Germany
phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com