

HUMAN IL-12 PROTEIN**Cat.#:** 12042**Product Name:** Human IL-12 Protein**Size:** 10 µg; 50 µg and 100 µg**Synonyms:** Interleukin-12 subunit alpha;IL-12A;Cytotoxic lymphocyte maturation factor 35 kDa subunit;CLMF p35;IL-12 subunit p35;NK cell;IL12A ;NKSFI stimulatory factor chain 1**Target:** IL-12**UNIPROT ID:** P29459;P29460**Description:** Recombinant Human Interleukin-12 Is Produced By Our Mammalian Expression System And The Target Gene Encoding Arg23-Ser219AndIle23-Ser328 Is Expressed.**Background:** IL-12 is a heterodimeric pleiotropic cytokine made up of a 40 kDa (p40) subunit and a 35 kDa (p35) subunit. Human and mouse IL-12 share 70% and 60% amino acid sequence identity in their p40 and p35 subunits, respectively. IL-12 is involved in the differentiation of naive T cells into Th1 cells. It is known as a T cell-stimulating factor, which can stimulate the growth and function of T cells. It stimulates the production of interferon-gamma (IFN-γ) and tumor necrosis factor-alpha (TNF-α) from T cells and natural killer (NK) cells, and reduces IL-4 mediated suppression of IFN-γ. T cells that produce IL-12 have a coreceptor, CD30, which is associated with IL-12 activity. IL-12 plays an important role in the activities of natural killer cells and T lymphocytes. IL-12 mediates enhancement of the cytotoxic activity of NK cells and CD8 cytotoxic T lymphocytes.**Species/Host:** HEK293**Molecular Weight:** 22.5 and 34.7 kDa**Molecular Characterization:** Not available**Purity:** Greater than 95% as determined by reducing SDS-PAGE.**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

Figure 1. Greater than 95% as determined by reducing SDS-PAGE.

