IL-21 Murine E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Murine
Other names: ,

Cat. No.:

RBG20021002	(2 µg)
RBG20021010	(10 µg)
RBG20021100	(100 µg)

Description

IL-21 is a pleiotropic cytokine produced by CD4+ T cells in response to antigenic stimulation. Its action generally enhances antigen-specific responses of immune cells. The biological effects of IL-21 include induction of differentiation of T cells-stimulated B-cells into plasma cells and memory B-cells, stimulation (in conjuction) with IL-4 of IgG production and induction of apoptotic effects in B-cells and stimulated B-cells in the absence of T cell signaling. Additionally, IL-21 promotes the anti-tumor activity of CD8+ T cells and NK cells. IL-21 exerts its effect through binding to a specific type I cytokine receptor, IL-21R, which also contains the ? chain (?c) found in other cytokine receptors including IL-2, IL-4, IL-7, IL-9 and IL-15. The IL-21/IL-21R interaction triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3. Recombinant human IL-21 is a 15.4 kDa protein consisting of 132 amino acid residues.

Research topic

Apoptosis, Immune Response, Infection and Inflammation, Oncology

Amino Acid Sequence

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MHKSSPQGPD RLLIRLRHLI DIVEQLKIYE NDLDPELLSA PQDVKGHCEH AAFACFQKAK LKPSNPGNNK TFIIDLVAQL
RRRLPARRGG KKQKHIAKCP SCDSYEKRTP KEFLERLKWL LQKMIHQHLS
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Source

E. coli

Purity

98%

Biological Activity

Assay #1: Measured by its ability to increase proliferation in mouse splenocytes induced by anti-hCD40 mAb. The expected ED_{50} is 15-20 ng/ml. Assay #2: Determined by its ability to stimulate the proliferation of human ANBL-6 cells. The expected ED_{50} is ? 1.0 ng/ml, corresponding to a specific activity of ? 1×10^6 units/mg

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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