

DATASHEET
Version 20181206**IL-21, Mouse****Cat. No.:** Z03242-1**Size:** 1.0 mg**Synonyms:** none**Description:**

Interleukin-21 (IL-21) belongs to the Type I four helix bundle cytokines, and shares the common cytokine receptor γ chain with IL-2, IL-4, IL-7, IL-9, and IL-15. IL-21 is expressed by CD⁴⁺ T cells, natural killer (NK) T cells, and Th17 cells. The IL-21 receptor is highly expressed on CD⁴⁺ and CD⁸⁺ B cells. IL-21 plays a pivotal role in the survival and proliferation of B cells, and their differentiation to immunoglobulin (Ig) producing cells. IL-21 regulates the production of IgG1 and IgE by B cells, and diminishes the severity of allergy and asthma. In some cases, IL-21 induces B cell apoptosis. Other roles of IL-21 include regulation of the innate immune system, implication in autoimmunity, and antitumor activity.

Recombinant mouse interleukin-21 (IL-21) produced in *E.coli* is a single non-glycosylated polypeptide chain containing 130 amino acids. A fully biologically active molecule, rhIL-21 has a molecular mass of 15.1 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

00001 MHKSSPQGPD RLLIRLRHLI DIVEQLKIYE NDLDPELLSA
00041 PQDVKGHCEH AAFACFQKAK LKPSNPGNNK TFIIDLVAQL
00081 RRRLPARRGG KKQKHIKCP SCDSYEKRTP KEFLERLKWL
00121 LQKMIHQHLS

Source: *E. coli***Species:** Mouse**Biological Activity:** ED₅₀ < 1 ng/mL, measured by its ability to stimulate the proliferation of human ANBL-6 cells, corresponding to a specific activity of > 1.0 × 10⁶ units/mg.**Molecular Weight:** 15.1 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 µg/ml.**Purity:** > 98% as analyzed by SDS-PAGE.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant mouse interleukin-21 (IL-21) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, mouse interleukin-21 (IL-21) should be stable up to 1 week at 4°C or up to 2 months at -20°C.