

Overview

Synonyms	Za11
Description	<p>Interleukin-21 (IL-21) belongs to the Type I four helix bundle cytokines, and shares the common cytokine receptor ³ 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, and the IL-21 receptor is highly expressed on CD4+ and CD8+ B cells; indeed, IL-21 plays a pivotal role in the survival and proliferation of B cells, and their differentiation to immunoglobulin (Ig) producing cells. IL-21 up-regulates and down-regulates the production of IgG1 and IgE by B cells, respectively, and diminishes the severity of allergy and asthma. In some case, IL-21 also induces the apoptosis of B cells. The other roles of IL-21 include regulation of innate immune systems, implication on autoimmunity, and antitumor actions.</p> <p>Recombinant human Interleukin-21 (rhIL-21) produced in <i>E. coli</i> is a single non-glycosylated polypeptide chain containing 132 amino acids. A fully biologically active molecule, rhIL-21 has a molecular mass of 15.4 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.</p>
Accession No	Q9HBE4
Species	Human
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 0.5 ng/mL, measured by a cell growth inhibition assay using Mino cells, corresponding to a specific activity of > 2.0× 10 ⁶ units/mg.
Sequence	<p>MQDRHMIRMRLQLIDIVDQLKNYVNDLVPEFLPAPEDVETN CEWSAFSCFQKAQLKSANTGNNERIINVSINKLKRKPPST NAGRRQKHRLTCPSCDSYEKKPPEFLERFKSLLQKMIHQ HLSRTHGSEDS</p>

Properties

Measured Molecular Weight	15.4 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE analysis.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 µg/mL.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant human Interleukin-21 (rhIL-21) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhIL-21 should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Note	For research use only

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