

Recombinant Mouse IL-21

Information

Gene ID	60505
Accession #	Q9ES17
Alternate Names	
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 15.0 kDa, a single non-glycosylated polypeptide chain containing 129 amino acids.
AA Sequence	HKSSPQGPDR LLIRLRHLID IVEQLKIYEN DLDPELLSAP QDVKGHCCEHA AFACFQKAKL KPSNPGNNKT FIIDLVAQLR RRLPARRGGK KQKHIACPS CDSYEKRTPK EFLERLKWLL QKMIHQHLS
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 2 × PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human N1186 T cells is less than 25 ng/ml, corresponding to a specific activity of > 4.0 × 10 ⁴ IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
Recombinant Mouse IL-21	10 µg	100 µg	500 µg

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Quality Control

Purity	> 98 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/μg of rMuIL-21 as determined by LAL method.

Description

IL-21 is encoded by IL-21 gene located on Chr. 4 in mouse. It is a pleiotropic cytokine produced by CD4+ T cells in response to antigenic stimulation and can regulating immune system cells, for instance cytotoxic T cells and natural killer cells. Additionally, it can induce target cells division or proliferation. IL-21 elicits its effect through binding to IL-21R, which also contains the gamma chain found in other cytokine receptors such as IL-2, IL-4, IL-7, IL-9 and IL-15. 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. IL-21 shows having much relation with clinical illnesses, including cancer immunotherapy, viral infections and allergies. The murine IL-21 precursor contains a predicted 17 amino acid (a.a.) signal sequence and a 129 a.a.mature chain. Mature murine IL-21 shares 66 %, 59 %, 58 % and 88 % a.a. sequence identity with mature canine, human, rabbit and rat IL-21, respectively

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