

**Datasheet for 010-001-V61-0010****rMouse IL-21 Protein****Overview**

<b>Description:</b>	Mouse Interleukin-21 Recombinant Protein - 010-001-V61-0010
<b>Item No.:</b>	010-001-V61-0010
<b>Size:</b>	10 µg
<b>Applications:</b>	Cellular Assay
<b>Origin:</b>	Mouse
<b>Expressed in:</b>	E. coli

**Product Details**

<b>Background:</b>	Interleukin-21 (IL-21) is a member of the common gamma-chain family of cytokines (includes IL-2, IL-4, IL-7, IL-9, IL-13, and IL-15) and is expressed by activated CD4+ T cells. IL-21 has a private receptor known as IL-21R, which is expressed on T, B, and NK cells. Within the B cell lineage, IL-21 regulates IgG1 production and cooperates with IL-4 for the production of multiple Ab classes in vivo. Initial studies have demonstrated that IL-21 has pleiotropic effects on the proliferation, differentiation, and effector functions of B, T, natural killer, and dendritic cells. Recombinant mouse IL-21 is a non-glycosylated protein, containing 130 amino acids, with a total molecular weight of 15.1 kDa.
<b>Synonyms:</b>	Interleukin-21, IL-21, Za11, Interleukin 22
<b>Species of Origin:</b>	Mouse
<b>Expressed in:</b>	E. coli
<b>Type:</b>	Recombinant Protein
<b>Low Endotoxin:</b>	Yes

**Target Details**

<b>Gene Name:</b>	Il21
<b>Purity/Specificity:</b>	Interleukin-21 purity was determined to be greater than 95% as determined by analysis by UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-PAGE.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q9ES17</a></li></ul>

## Application Details

<b>Suggested Applications:</b>	Cellular Assay (Based on references)
<b>Application Note:</b>	Interleukin-21 Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Interleukin-21 in immunological assays. Lyophilized in 20 mM sodium bicarbonate, pH 8.5.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>Other:</b>	Endotoxin Level: Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein. Biologic Activity: The activity is determined by a dose-dependent proliferation of lymphocytes co-stimulated with anti-CD3 $\epsilon$ and is typically 2-50 ng/mL.

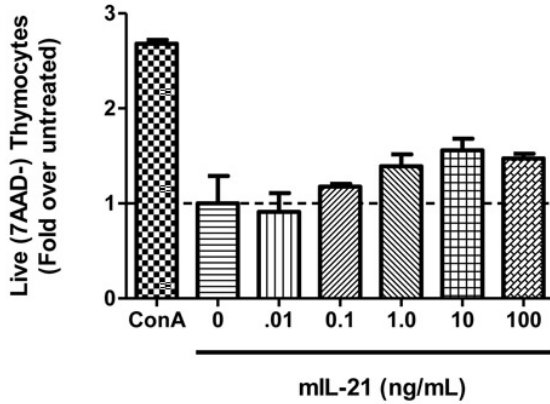
## Formulation

<b>Physical State:</b>	Lyophilized
<b>Buffer:</b>	See application note.
<b>Preservative:</b>	None
<b>Stabilizer:</b>	None
<b>Reconstitution Volume:</b>	10 $\mu$ l (10-100 $\mu$ l)
<b>Reconstitution Buffer:</b>	Restore with deionized water (or equivalent)

## Shipping & Handling

<b>Shipping Condition:</b>	Ambient
<b>Storage Condition:</b>	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
<b>Expiration:</b>	Expiration date is six (6) months from date of receipt.

## Images



#### SDS-PAGE

Bioactivity of Mouse Interleukin-21 Recombinant Protein. Serial dilutions of Mouse IL-21 (starting at 100 ng/mL) or ConA (+ control) were added to primary mouse thymocytes cultured on an anti-cD3e coated plate. After 72 hours, total live thymocytes were measured and the linear portion of the curve was used to calculate the ED50. The ED50 of Mouse IL-21 is between 2.5-7.5 ng/mL. This effect is comparable to the competitor sample assayed in J. Parrish-Novak, et al. (2000) Nature 408:57-63.

## Disclaimer

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