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Datasheet for 010-001-V61-0002

rMouse IL-21 Protein

Overview

Description:	Mouse Interleukin-21 Recombinant Protein - 010-001-V61-0002
Item No.:	010-001-V61-0002
Size:	2 µg
Applications:	Cellular Assay
Origin:	Mouse
Expressed in:	E. coli

Product Details

Background:	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.
Synonyms:	Interleukin-21, IL-21, Za11, Interleukin 21
Species of Origin:	Mouse
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	Il21
Purity/Specificity:	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.
Relevant Links:	• UniProtKB - Q9ES17

Application Details

Suggested Applications:	Cellular Assay (Based on references)
Application Note:	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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/µg protein. Biologic Activity: The activity is determined by a dose-dependent proliferation of lymphocytes co-stimulated with anti-CD3ε and is typically 2-50 ng/mL.

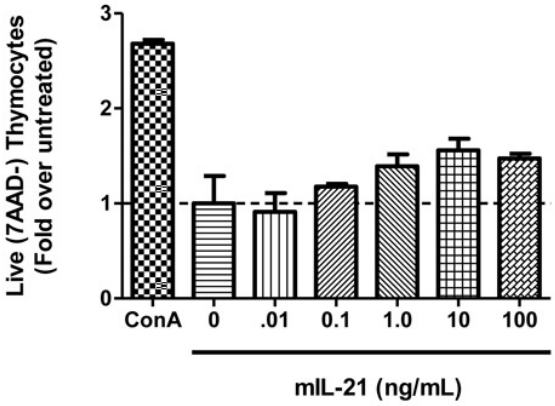
Formulation

Physical State:	Lyophilized
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	2µl (2-20µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	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.
Expiration:	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 thymoctyes were measured and the linear portion of the curve was us 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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