

## IL-21 Protein, Mouse (Biotinylated, His-Avi)

Cat. No.:	HY-P78149
Synonyms:	Interleukin-21; IL-21; Za11; CVID11
Species:	Mouse
Source:	E. coli
Accession:	Q9ES17 (H18-S146)
Gene ID:	60505
Molecular Weight:	18-25 kDa

### PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 20 mM NaAc, 150 mM NaCl, pH 5.5.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

#### Background

IL-21, a cytokine endowed with immunoregulatory prowess, emerges as a key player in orchestrating the delicate transition between innate and adaptive immunity. This multifaceted regulator takes the stage in inducing the production of IgG(1) and IgG(3) in B-cells, thereby substantiating its pivotal role in shaping humoral immune responses. IL-21 finds its niche in fostering the generation and perpetuation of T follicular helper (Tfh) cells and the intricate formation of germinal centers. Collaborating synergistically with IL6, it exercises command over the early development of Tfh cells, contributing indispensably to a robust antibody response during acute viral infections. Beyond B-cells, IL-21 extends its influence to the realm of natural killer (NK) cells, where, in synergy with IL15, it fuels their proliferation and maturation. Further, IL-21 flexes its regulatory muscle, guiding the proliferation and maturation of mature B- and T-cells in response to activating stimuli. In tandem with IL15 and IL18, it orchestrates the production of interferon-gamma in both T-cells and NK cells. Notably, during T-cell-mediated immune responses, IL-21 steps in as a potential inhibitor, dampening the activation and maturation of dendritic cells, unveiling a nuanced regulatory role in immune dynamics.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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