

## IL-21 Protein, Mouse (His)

Cat. No.:	HY-P700294
Synonyms:	Interleukin-21; IL-21; IL21; IL21
Species:	Mouse
Source:	E. coli
Accession:	Q9ES17 (P25-S146)
Gene ID:	60505
Molecular Weight:	16 KDa

### PROPERTIES

AA Sequence	<p>P D R L L I R L R H      L I D I V E Q L K I      Y E N D L D P E L L      S A P Q D V K G H C</p> <p>E H A A F A C F Q K      A K L K P S N P G N      N K T F I I D L V A      Q L R R R L P A R R</p> <p>G G K K Q K H I A K      C P S C D S Y E K R      T P K E F L E R L K      W L L Q K M I H Q H</p> <p>L S</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Histidine-HCl, 6% Sucrose, 2% Glycine, 50 mM NaCl, 0.05% Tween 80, pH 6.5.
Endotoxin Level	Less than 1 EU/µg as determined by LAL test.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>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</p>
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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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