

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IL-21, Mouse

Catalog Number: BK0099-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

Interleukin-21 (IL-21) belongs to the Type I four helix bundle cytokines, and shares the common cytokine receptor  $\gamma$  chain with IL-2, IL-4, IL-7, IL-9, and IL-15. IL-21 is expressed by CD4<sup>+</sup> T cells, natural killer (NK) T cells, and Th17 cells. The IL-21 receptor is highly expressed on CD4<sup>+</sup> and CD8<sup>+</sup> B cells. IL-21 plays a pivotal role in the survival and proliferation of B cells, and their differentiation to immunoglobulin (Ig) producing cells. IL-21 regulates the production of IgG1 and IgE by B cells, and diminishes the severity of allergy and asthma. In some cases, IL-21 induces B cell apoptosis. Other roles of IL-21 include regulation of the innate immune system, implication in autoimmunity, and antitumor activity. Recombinant mouse interleukin-21 (IL-21) produced in E.coli is a single non-glycosylated polypeptide chain containing 123 amino acids. A fully biologically active molecule, rhIL-21 has a molecular mass of 15.1 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

### Molecular Weight:

15.1 kDa, observed by reducing SDS-PAGE.

### Purity:

> 98% as analyzed by SDS-PAGE.

### Biological Activity:

ED50 < 1 ng/mL, measured by its ability to stimulate the proliferation of human ANBL-6 cells, corresponding to a specific activity of > 1.0 × 10<sup>6</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

MHKSSPQGPDRLLIRLRHLIDIVEQLKI-  
YENDLDPELLSAPQDVKGH-  
CEHAAFACFQKAKLKP-  
SNPGNNKTFIIDLVAQLRRRL-  
PARRGGKKQKHIKPCSDSYE-  
K RTPKEFLERLKWLLQKMIHQHLS

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

### Storage:

Lyophilized recombinant mouse interleukin-21 (IL-21) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, mouse interleukin-21 (IL-21) should be stable up to 1 week at 4 °C or up to 2 months at -20 °C.

### Usage:

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