

Human IL-21

Recombinant Protein

Product Information

Product No.: I-452

Storage: Sterile -20° to -70°C

Product Description

Background:

Interleukin 21 (IL-21) is a T cell-derived pleiotropic cytokine that has potent regulatory effects on cells of the immune system, including natural killer (NK) cells and cytotoxic T cells that can destroy virally infected or cancerous cells.^{1,2} This cytokine induces cell division/proliferation in its target cells. IL-21 elicits its effects on immune cells by interacting with a cell surface receptor known as the interleukin 21 receptor, IL-21R, which is expressed in bone marrow cells and various lymphocytes. IL-21 is closely related to IL-2 and IL-15³ and is a key factor in the transition between innate and adaptive immune responses.⁴ The critical role of IL21 in promoting humoral immune responses makes it an important focus of potential therapeutic interventions in conditions characterized by overproduction of pathogenic autoantibodies.⁵

Known Reactivity Species:

Human

Expression Host:

E. coli Cells

Formulation

This recombinant protein was 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.4 containing 5.0% w/v trehalose with no calcium, magnesium, or preservatives.

Purity

>95% by SDS Page and analyzed by silver stain.

Endotoxin

<1.0 EU/µg as determined by the LAL method

Storage and Stability

This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer.

Avoid Repeated Freeze Thaw Cycles.

Country of Origin

USA

References

- 1) Foster D et al. (2000) Nature 408: 57
- 2) Clegg CH et al. (2002) J. Leukoc. Biol. 72: 856
- 3) Leonard WJ. et al. (2002) Science 298: 1630
- 4) Joannopoulos K. et al. (2003) J. Immunol. 171: 608
- 5) Lipsky PE. et al. (2008) Ann Rheum. Dis. 3: 83