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#45095**Human Interleukin-21 (hIL-21)
Recombinant Protein**

10 µg

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For Research Use Only. Not for Use in Diagnostic Procedures.**MW (kDa):**
16**UniProt ID:**
#Q9HBE4**Entrez-Gene Id:**
59067**Background**

IL-21 is produced by Th17, T follicular helper (Tfh) and NKT cells (1-3). Targets include T cells, B cells, NK cells and dendritic cells (1-3,5). IL-21 induces proliferation and activation of NK cells, thereby up-regulating IFN- γ production and cytotoxic activity (1,3,4). IL-21 increases proliferation and survival of CD40-primed B cells (1,2) and appears to have a significant role in plasma cell differentiation (2). IL-21 binds to a complex consisting of IL-21R α and the common γ chain, γ c. IL-21 binding activates the Jak1/Jak3, Stat1, Stat3 and Stat5 pathway. IL-21 binding can also activate the MAP kinase and PI3K/Akt pathways.

Endotoxin

Less than or equal to 1 EU / 1 µg hIL-21.

Purity

A greater than 95% purity was determined by SDS-PAGE.

Source / Purification

Recombinant human IL-21 was expressed in *E. coli* and is supplied in a lyophilized form.

Bioactivity

The bioactivity of recombinant hIL-21 was determined by its ability to induce IFN- γ production in B9 cells. The ED₅₀ of each lot is between 25-50 ng/ml.

Background References

1. Parrish-Novak, J. et al. (2000) *Nature* 408, 57-63.
2. Parrish-Novak, J. et al. (2002) *J Leukoc Biol* 72, 856-63.
3. Konforte, D. et al. (2009) *J Immunol* 182, 1781-7.
4. Strengell, M. et al. (2002) *J Immunol* 169, 3600-5.
5. Davis, I.D. et al. (2007) *Clin Cancer Res* 13, 6926-32.

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