

Technical Data Sheet

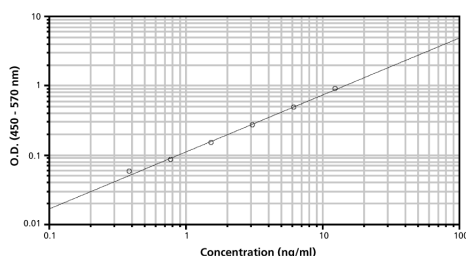
Biotin Mouse anti-Human IL-21

Product Information

Material Number:	558502
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	I76-539
Immunogen:	Human IL-21
Isotype:	Mouse IgG1, κ
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The I76-539 antibody reacts with interleukin-21 (IL-21), an ~ 15 kDa member of the type-I-cytokine family of proteins. IL-21 is expressed primarily by CD4+ T cells and has a broad range of immunoregulatory functions on B cells, CD8+ T cells, NK cells and dendritic cells. The effects of IL-21 include promotion of antibody production, NK cell differentiation, proliferation and differentiation of cells of monocyte and granulocyte lineages, costimulation of T cells and augmentation of antitumor activity of CD8+ T cells. It has been speculated that IL-21, through its various positive and negative regulatory effects on cell-mediated and humoral immunity, may play a role in autoimmunity, allergy, asthma and tumor regression.



Human IL-21 sandwich ELISA curve: The curve was generated by a sandwich ELISA using the purified J148-1134 as capture antibody (Cat. No. 558503), doubling dilutions of recombinant human IL-21 protein and biotin I76-539 as detection antibody. Streptavidin-HRP (Cat. No. 554066) plus TMB substrate (Cat. No. 555214) were used to develop the ELISA.

Preparation and Storage

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Store undiluted at 4°C.

Application Notes

Application

ELISA	Routinely Tested
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Recommended Assay Procedure:

The biotinylated I76-539 mAb is useful as a detection antibody for a sandwich ELISA that measures human IL-21 protein when paired with purified mouse anti-human IL-21 (Cat. No. 558503) as capture antibody and recombinant human IL-21 protein as standard. The biotinylated I76-539 antibody should be titrated between 1 - 4 μ g/ml to determine its optimal concentration. To obtain linear standard curves, doubling dilutions of recombinant human IL-21 protein ranging from 0.39 - 50 ng/ml are recommended. For specific methodology, see *Chapter 7: ELISA for specifically measuring the levels of cytokines, chemokines, and inflammatory mediators and their receptors. 2003. Techniques for Immune Function Analysis Application Handbook 1st Edition. BD Biosciences.* For this ELISA antibody pair, no cross-reactivity has been observed with the following: human IL-1 α , IL-1 β , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12/23p40, IL-12p70, IL-13, IL-15, IFN- γ , G-CSF, M-CSF, TNF and TGF- β .

Suggested Companion Products

Catalog Number	Name	Size	Clone
558503	Purified Mouse anti-Human IL-21	0.5 mg	J148-1134

Product Notices

1. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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References

- Leonard WJ and Spolski R. Interleukin-21: A modulator of lymphoid proliferation, apoptosis and differentiation. *Nat Rev Immunol.* 2005; 5(9):688-698. (Biology)
- Sivakumar PV, Foster DC and Clegg CH. Interleukin-21 is a T-helper cytokine that regulates humoral immunity and cell-mediated anti-tumour responses. *Immunology.* 2004; 112(2):177-182. (Biology)