

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-21 R in direct ELISAs. In direct ELISAs, this antibody does not cross-react with recombinant human (rh)IL-2 Rβ or rIL-21 R.
Source	Monoclonal Mouse IgG ₁ Clone # 152512
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-21 R Cys20-Pro236 Accession # Q9HBE5
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human whole blood CD19 ⁺ B cells

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Interleukin-21 (IL-21) and its receptor play an important role in the regulation of the immune system. IL-21 R, also called NILR (novel interleukin receptor), is a type I cytokine receptor with 4 conserved cysteine residues and an extracellular WSXWS motif. It is most closely related to IL-2 Rβ, IL-4 Rα, and IL-9 R. The gene for human IL-21 R has been mapped to chromosome 16p12. Human IL-21 R is a 538 amino acid (aa) residue type I transmembrane protein with a 19 aa signal peptide, a 217 aa extracellular domain, a 19 aa transmembrane domain, and a 283 aa cytoplasmic domain. IL-21 R is expressed on lymphoid tissues, peripheral B cells, and cell lines of T, B, and NK lineage. The common γ chain (γ_c) is required for IL-21 R signaling. The IL-21/IL-21 R interaction appears to play an important role in B and T cell proliferation after antigen stimulation and NK cell maturation.

References:

1. Parrish-Novak, *et al.* (2000) *Nature* **408**:57.
2. Ozaki, K. *et al.* (2000) *Proc. Natl. Acad. Sci. USA* **97**:11439.
3. Dumoutier, L. *et al.* (2000) *Proc. Natl. Acad. Sci. USA* **97**:10144.
4. Asao, H. *et al.* (2001) *J. Immunol.* **167**:1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.