

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 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

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