

# Mouse IL-21 PE-conjugated Antibody

Monoclonal Rat IgG<sub>2B</sub> Clone # 149204 Catalog Number: IC594P

100 Tests, 25 Tests

DESCRIPTION			
Species Reactivity	Mouse  Detects mouse IL-21 in Western blots. Does not cross-react with recombinant human IL-21, recombinant mouse (rm) IL-15, or rmIL-12.		
Specificity			
Source	Monoclonal Rat IgG <sub>2B</sub> Clone # 149204		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant mouse IL-21 Pro25-Ser146 Accession # Q9ES17		
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm		
Formulation	Supplied 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.		

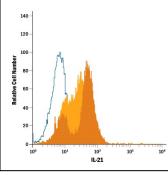
#### APPLICATIONS

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
Intracellular Staining by Flow Cytometry	10 μL/10 <sup>6</sup> cells	See Below

#### DATA

## Intracellular Staining by Flow Cytometry



Detection of IL-21 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes either untreated (light orange filled histogram) or treated with PMA and Calcium lonomycin (dark orange filled histogram) were stained with Rat Anti-Mouse IL-21 PE-conjugated Monoclonal Antibody (Catalog # IC594P, filled histogram) or isotype control antibody (Catalog # IC013P, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules

## 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

• 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

Interleukin-21 (IL-21) and its receptor appear to play important roles in the regulation of the immune system. IL-21 is most closely related to IL-2, IL-4, and IL-15. 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 R $\beta$  and IL-4 R $\alpha$ . Mouse IL-21 is a 146 amino acid (aa) residue protein with a 24 aa signal peptide. Mouse and human IL-21 share 57% aa identity. IL-21 is expressed by activated T cells. Although not fully elucidated, the IL-2 R $\gamma$  ( $\gamma$ <sub>c</sub>) chain appears to play a role in IL-21 R signaling. The IL-21/IL-21 R interaction appears to play important roles in B and T cell proliferation after antigen stimulation and NK cell maturation.

## References:

- 1. Parrish-Novak, J. 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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