

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse IL-21 in Western blots. Does not cross-react with recombinant human IL-21, recombinant mouse (rm) IL-15, or rmlIL-12.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 149204
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse IL-21 Pro25-Ser146 Accession # Q9ES17
<b>Conjugate</b>	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
<b>Formulation</b>	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
<b>Intracellular Staining by Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Mouse splenocytes treated with PMA and Ca <sup>2+</sup> ionomycin, fixed with paraformaldehyde, and permeabilized with saponin

## PREPARATION AND STORAGE

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

## BACKGROUND

Interleukin-21 (IL-21) and its receptor appear to play important roles in the regulation of the immune system. IL-21 is most 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 Rβ and IL-4 Rα. 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 Rγ (γ<sub>c</sub>) chain appears to play a role in IL-21 R signaling. The IL-21/IL-21 R interaction appear to play important roles 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

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