

DESCRIPTION

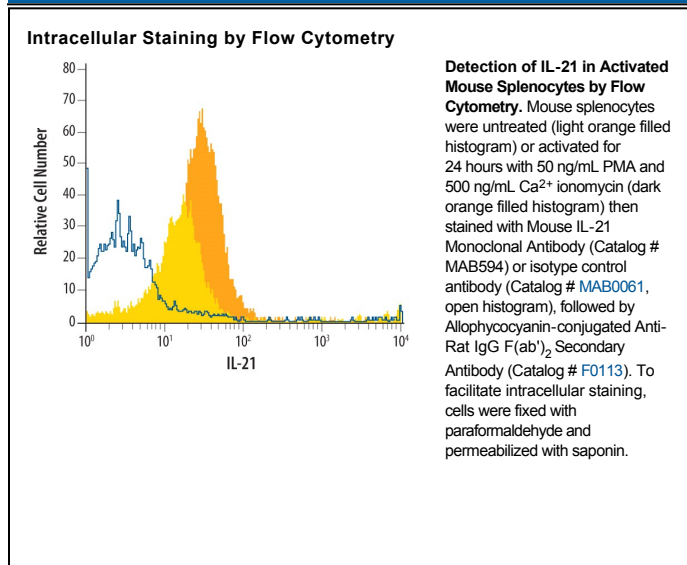
| | |
|---------------------------|---|
| Species Reactivity | Mouse |
| Specificity | Detects mouse IL-21 in Western blots. Does not cross-react with recombinant human IL-21, recombinant mouse (rm) IL-15, or rmlIL-12. |
| Source | Monoclonal Rat IgG _{2B} Clone # 149204 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant mouse IL-21 Pro25-Ser146 Accession # Q9ES17 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

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 |
|---|--|--|
| Western Blot | 1 µg/mL | Recombinant Mouse IL-21 (Catalog # 594-ML) |
| Intracellular Staining by Flow Cytometry | 2.5 µg/10 ⁶ cells | See Below |
| CytoF-ready | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |

DATA



PREPARATION AND STORAGE

| | |
|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

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 R β and IL-4 R α . 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 γ (V_c) 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.