

## DESCRIPTION

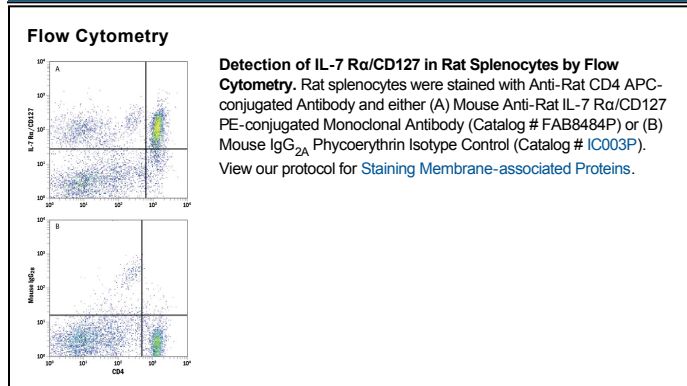
<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat IL-7 R $\alpha$ /CD127 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 717519
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant rat IL-7 R $\alpha$ /CD127 Glu21-Asp239 Accession # NP_001099888
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	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
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## 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

IL-7 R $\alpha$  (IL-7 Receptor alpha), also known as CD127, is a 60-70 kDa member of the type I cytokine receptor family of molecules. It is expressed on resting naïve and memory CD8<sup>+</sup> T cells, DN thymocytes, pre-B cells, Th1 CD4<sup>+</sup> T cells, dendritic cells and monocytes. IL-7 R $\alpha$  heterodimerizes with both the  $\gamma$ c chain to create the IL-7 receptor, and the TSLPR subunit to generate the TSLP Receptor. IL-7 R $\alpha$  participates in T cell differentiation, naïve T cell survival, and CD4<sup>+</sup> thymocyte proliferation. Mature rat IL-7 R $\alpha$  is a 437 amino acid (aa) type I transmembrane glycoprotein. It contains a 219 aa extracellular region (aa 21-239) that possesses one type III Fibronectin domain (aa 129-222), and a 193 aa cytoplasmic tail that shows a key phosphorylation site at Tyr447. Over aa 21-239, rat IL-7 R $\alpha$  shares 79% and 67% aa identity with mouse and human IL-7 R $\alpha$ , respectively.