

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat IL-7 R α /CD127 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 717519
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat IL-7 R α /CD127 Glu21-Asp239 Accession # NP_001099888
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 μ g/10 ⁶ cells	CD4 ⁺ Rat Splenocytes

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

IL-7 R α (IL-7 receptor alpha; also 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⁺ T cells, DN thymocytes, pre-B cells, Th1 CD4⁺ T cells, dendritic cells and monocytes. IL-7 R α heterodimerizes with both the γ c chain to create the IL-7 receptor, and the TSLPR subunit to generate the TSLP receptor. IL-7 R α participates in T cell differentiation, naïve T cell survival, and CD4⁺ thymocyte proliferation. Mature rat IL-7 R α is a 437 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 α shares 79% and 67% aa identity with mouse and human IL-7 R α , respectively.

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