

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-2 R β in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-2 R α , rh γ_c , rhIL-4 R, or rhIL-6 R is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 27302
Purification	Protein A or G purified from ascites
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-2 R β Ala27-Asp239 Accession # NP_000869
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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	Human whole blood CD56 ⁺ natural killer cells

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

Functional IL-2 receptors can exist in two affinity states on cell surfaces, the high affinity complex consisting of heterotrimers of the α , β , and γ chains and the intermediate affinity complex comprising heterodimers of the β and γ chains. Individual β chains and α chains exhibit low affinity IL-2 binding, and the γ chain alone does not bind IL-2. In addition to their involvement in IL-2 mediated signal transduction, both the β chain and γ chain have been shown to be required for IL-15 mediated signaling. IL-2 R β is a member of the cytokine receptor superfamily. Human IL-2 R β cDNA encodes a 551 amino acid (aa) precursor Type I membrane protein with a 26 aa signal peptide, a 214 aa extracellular region, a 25 aa transmembrane region and a 286 aa cytoplasmic domain. A soluble IL-2 R β has been identified in the culture supernatants of a human lymphoid cell line, YT, that displays IL-2 R β . Soluble IL-2 R β binds IL-2 with low affinity and is not an effective IL-2 antagonist on cells displaying the high or intermediate affinity IL-2 signaling receptors. Nevertheless, soluble IL-2 R β binds IL-15 with sufficient affinity to neutralize IL-15 biological activities.

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