

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Common $\gamma$ Chain/IL-2 R $\gamma$ in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-2 R $\alpha$ , rhIL-2 R $\beta$ , rhIL-15 R $\alpha$ , recombinant mouse IL-2 R $\gamma$ , or recombinant canine IL-2 R $\alpha$ is observed. In Western blots, approximately 80% cross-reactivity with recombinant human IL-2 R $\beta$ , 50% cross-reactivity with rhIL-15 R $\alpha$ and recombinant mouse IL-2 R $\alpha$ , and no cross-reactivity with rhIL-2 R $\alpha$ is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 633162
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf21-derived recombinant human Common $\gamma$ Chain/IL-2 $\gamma$ Leu23-Asn254 Accession # P31785
<b>Conjugate</b>	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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>Flow Cytometry</b>	0.25-1 $\mu$ g/10 <sup>6</sup> cells	Human peripheral blood lymphocytes

## 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.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

## BACKGROUND

The  $\gamma$  chain of the high affinity functional human IL-2 receptor complex belongs to the hematopoietin receptor family. IL-2 R $\gamma$  is a 369 amino acid protein consisting of a 22 aa signal sequence, a 232 aa extracellular domain, a 29 aa transmembrane domain and an 86 aa cytoplasmic domain. Although IL-2 R $\gamma$  by itself does not bind IL-2 with any appreciable affinity, it is required for IL-2 receptor signaling. Besides IL-2, the  $\gamma$  chain has been shown to be a component of the functional receptor complexes for IL-4, IL-7, IL-9 and IL-15. IL-2 R $\gamma$  has been designated the common  $\gamma$  chain ( $\gamma_c$ ). The site of molecular defects in X-linked SCID (severe combined immunodeficiency) has been mapped to the IL-2 R $\gamma$  gene.

### References:

1. Minami, Y. *et al.* (1993) *Annu. Rev. Immunol.* **11**:245.
2. Noguchi, M. *et al.* (1993) *Science* **262**:1877.

## PRODUCT SPECIFIC NOTICES

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