

## DESCRIPTION

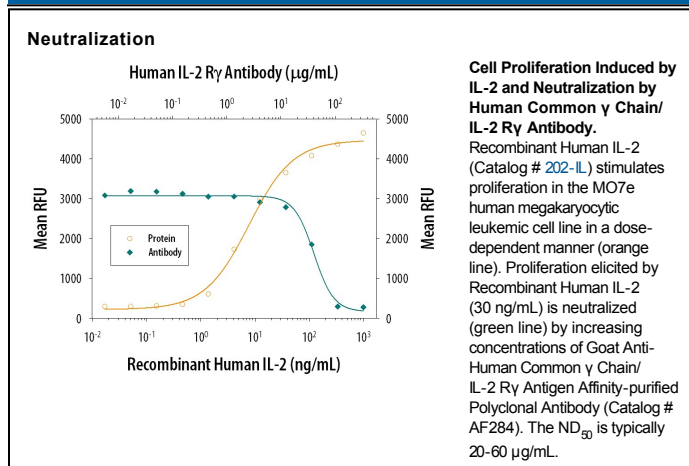
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Common $\gamma$ Chain/IL-2 R $\gamma$ in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse IL-2 R $\gamma$ is observed, less than 10% cross-reactivity with recombinant human (rh) IL-2 R $\beta$ is observed, and less than 2% cross-reactivity with rhIL-2 R $\alpha$ is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Common $\gamma$ Chain/IL-2 R $\gamma$ Leu23-Asn254 Accession # P31785
<b>Endotoxin Level</b>	<1.0 EU per 1 $\mu$ g of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m 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
<b>Western Blot</b>	0.1 $\mu$ g/mL	Recombinant Human Common $\gamma$ Chain/IL-2 R $\gamma$ (Catalog # 384-RG)
<b>Flow Cytometry</b>	0.25 $\mu$ g/10 <sup>6</sup> cells	Daudi human Burkitt's lymphoma cell line
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Neutralization</b>	Measured by its ability to neutralize IL-2-induced proliferation in the MO7e human megakaryocytic leukemic cell line. Avanzi, G. <i>et al.</i> (1988) <i>Br. J. Haematol.</i> <b>69</b> :359. The Neutralization Dose (ND <sub>50</sub> ) is typically 20-60 $\mu$ g/mL in the presence of 30 ng/mL Recombinant Human IL-2.	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The  $\gamma$  chain of the high affinity functional human IL-2 receptor complex belongs to the hematopoietin receptor family. IL-2 Ry is a 369 amino acid residue protein consisting of a 22 residue signal sequence, a 232 residue extracellular domain, a 29 residue transmembrane domain and an 86 residue cytoplasmic domain. Although IL-2 Ry 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. It has been proposed that IL-2 Ry be designated the common  $\gamma$  chain ( $\gamma_c$ ). The site of molecular defects in X-linked SCID (severe combined immunodeficiency) has now been mapped to the IL-2 Ry gene.

## References:

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