

DESCRIPTION

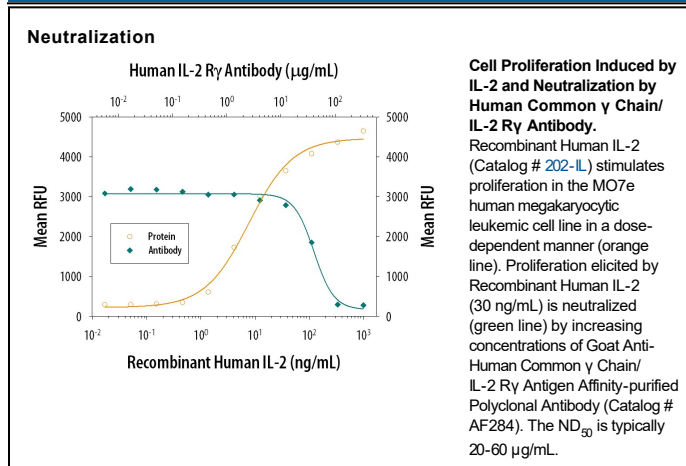
Species Reactivity	Human
Specificity	Detects human Common γ Chain/IL-2 R γ in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse IL-2 R γ is observed, less than 10% cross-reactivity with recombinant human (rh) IL-2 R β is observed, and less than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

DATA



PREPARATION AND STORAGE

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

BACKGROUND

The γ chain of the high affinity functional human IL-2 receptor complex belongs to the hematopoietin receptor family. IL-2 R γ 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 R γ by itself does not bind IL-2 with any appreciable affinity, it is required for IL-2 receptor signaling. Besides IL-2, the γ 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 R γ be designated the common γ chain (γ_c). The site of molecular defects in X-linked SCID (severe combined immunodeficiency) has now been mapped to the IL-2 R γ gene.

References:

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