

DESCRIPTION

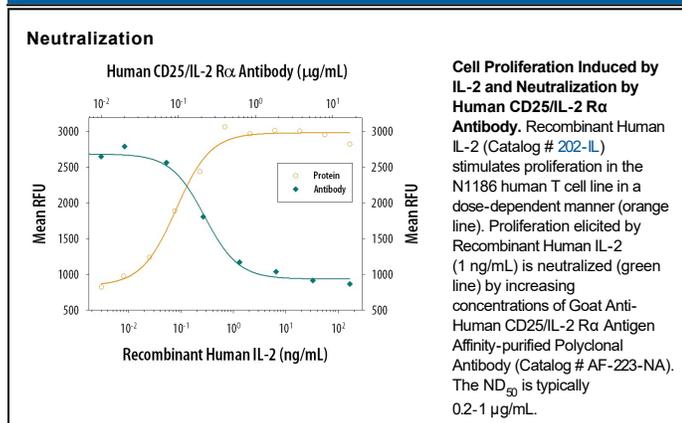
Species Reactivity	Human
Specificity	Detects human CD25/IL-2 R α in direct ELISAs and Western blots. In direct ELISAs, less than 15% cross-reactivity with recombinant human (rh) IL-2 sR γ is observed, less than 5% cross-reactivity with rhIL-6 sR is observed, and less than 1% cross-reactivity with rhIL-1 sRII and rhIL-2 sR β is observed. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse IL-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 CD25/IL-2 R α Glu22-Cys213 Accession # P01589
Endotoxin Level	<0.10 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 CD25/IL-2 R α (Catalog # 223-2A)
Flow Cytometry	2.5 μ g/10 ⁶ cells	Human whole blood lymphocytes
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 N1186 human T cell line. The Neutralization Dose (ND ₅₀) is typically 0.2-1 μ g/mL in the presence of 1 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

Human CD25, also known as IL-2 receptor alpha (IL-2 R α) and as Tac antigen, was initially identified as a 55 kDa membrane glycoprotein that is capable of binding IL-2. The IL-2 R α cDNA encodes a 272 amino acid residue precursor Type I membrane protein with a 21 residue signal peptide, a 219 residue extracellular region, a 19 residue transmembrane region and a 13 residue cytoplasmic domain. IL-2 R α lacks structural features characteristic of members of the cytokine receptor superfamily. By itself, IL-2 R α binds IL-2 with low affinity. However, when IL-2 R α is associated with the IL-2 receptor beta and gamma chains, a high affinity heterotrimeric receptor complex that transduces IL-2 signals is formed. Soluble forms of many cytokine receptors have been reported, and a soluble form of IL-2 R α (IL-2 sR α) appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2 R α is unclear. Increased levels of IL-2 sR α in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of IL-2 sR α has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas.