Human CD25/IL-2 R alpha Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-223-NA

DESCRIPTION

Species Reactivity Human

Specificity Detects human CD25/IL-2 Rα in direct ELISAs and Western blots. In direct ELISAs, less than 15% cross-reactivity with recombinant human (rh) IL-2 sRα is observed, less than 5% cross-reactivity with rhIL-6 sRα is observed, and less than 1% cross-reactivity with rhIL-1 sRα and rhIL-2 sRβ is observed. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse IL-2 Rα is observed.

Source Polyclonal Goat IgG

Purification Antigen Affinity-purified

Immunogen S. frugiperda insect ovarian cell line SF 21-derived recombinant human CD25/IL-2 Rα

Accession # P01589

Endotoxin Level <0.10 EU per 1 µg of the antibody by the LAL method.

Formulation Lyophilized from a 0.2 µm 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 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in theTechnical Information section on our website.

<table>
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<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 µg/mL Recombinant Human CD25/IL-2 Rα (Catalog # 223-2A)</td>
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<tr>
<td>Flow Cytometry</td>
<td>2.5 µg/10⁶ cells Human whole blood lymphocytes</td>
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<tr>
<td>CyTOF-ready</td>
<td>Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.</td>
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Neutralization Measured by its ability to neutralize IL-2-induced proliferation in the N1186 human T cell line. The Neutralization Dose (ND₅₀) is typically 0.2-1 µg/mL in the presence of 1 ng/mL Recombinant Human IL-2.

DATA

Neutralization

Cell Proliferation Induced by IL-2 and Neutralization by Human CD25/IL-2 Rα Antibody. Recombinant Human IL-2 (Catalog # 223-2A) stimulates proliferation in the N1186 human T cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human IL-2 (1 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CD25/IL-2 Rα Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-223-NA). The ND₅₀ is typically 0.2-1 µg/mL.

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 supplied 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.

- 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 Rα) and asTac antigen, was initially identified as a 55 kDa membrane glycoprotein that is capable of binding IL-2. The IL-2 Rα 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 Rα lacks structural features characteristic of members of the cytokine receptor superfamily. By itself, IL-2 Rα binds IL-2 with low affinity. However, when IL-2 Rα 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 Rα (IL-2 sRα) appears in serum, concomitant with increased expression of cells. The function of the soluble IL-2 Rα is unclear. Increased levels of IL-2 sRα in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of IL-2 sRα has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas.