

## DESCRIPTION

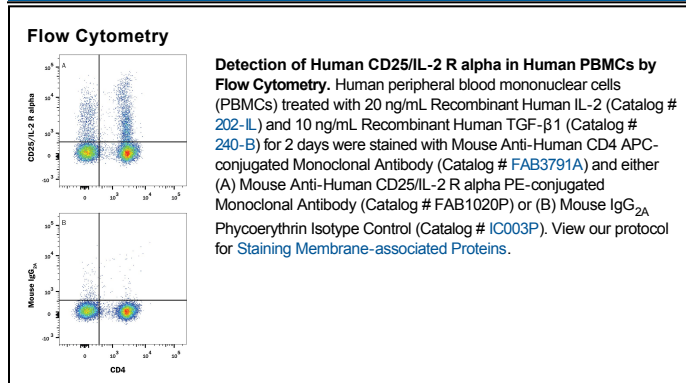
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human CD25/IL-2 R $\alpha$ in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) IL-2 R $\gamma$ or rhIL-15 R $\alpha$ is observed.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2A</sub> Clone # 24212   |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human CD25/IL-2 R $\alpha$<br>Glu22-Cys213<br>Accession # P01589   |
| <b>Conjugate</b>          | Phycoerythrin<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 565-605 nm  |
| <b>Formulation</b>        | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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> | 10 $\mu$ L/10 <sup>6</sup> cells | See Below |

## DATA



## PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.                                  |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

## BACKGROUND

Human CD25, also known as IL-2 receptor alpha (IL-2 R $\alpha$ ) and as Tac antigen, was initially identified as a 55 kDa membrane glycoprotein that is capable of binding IL-2. The IL-2 R $\alpha$  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 $\alpha$  lacks structural features characteristic of members of the cytokine receptor superfamily. By itself, IL-2 R $\alpha$  binds IL-2 with low affinity. However, when IL-2 R $\alpha$  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 $\alpha$  (IL-2 sR $\alpha$ ) appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2 R $\alpha$  is unclear. Increased levels of IL-2 sR $\alpha$  in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of IL-2 sR $\alpha$  has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas.