

## CD25/IL-2Ra

Catalog # PVGS1536

## **Product Information**

Primary Accession P01589
Species Human

Sequence Glu22-Cys213

**Purity** > 95% as analyzed by SDS-PAGE

Endotoxin Level

Biological Activity Immobilized Human IL-2 at 5.0 g/ml (100 g/well) can bind CD25/IL-2Rα, hFc,

Human.

Expression System HEK 293

**Formulation** Lyophilized from a 0.2 Im filtered solution in PBS.

**Reconstitution** It is recommended that this vial be briefly centrifuged prior to opening to

bring the contents to the bottom. Reconstitute the lyophilized powder in

ddH<sub>2</sub>O or PBS up to 100 □g/ml.

**Storage & Stability** Upon receiving, this product remains stable for up to 6 months at lower than

-70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw

cycles.

## **Additional Information**

Gene ID 3559

Other Names Interleukin-2 receptor subunit alpha, IL-2 receptor subunit alpha, IL-2-RA,

IL-2R subunit alpha, IL2-RA, TAC antigen, p55, CD25, IL2RA

**Target Background** The IL-2 receptor system consists of three non-covalently linked subunits

termed IL-2R $\alpha$ , IL-2R $\beta$ , and IL-2R $\gamma$ . The IL-2R $\alpha$  is a type I transmembrane protein consisting of a 219 amino acid (a.a.) extracellular domain, a 19 a.a. transmembrane domain and a 13 a.a. intracellular domain, which is not involved in the transduction of IL-2 signal. Activated T cells, regulatory T cells (Tregs) and NK cells express high levels of CD25 and expression of the high-affinity IL-2R $\alpha$  is mostly limited to these cell populations. Signaling via IL-2R $\alpha$  mediates multiple biological processes in various cell populations, e.g. proliferation and differentiation of B cells and NK cells. A soluble form of IL-2R $\alpha$  (IL-2R $\alpha$ ) appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2R $\alpha$  is unclear. Increased levels of IL-2R $\alpha$  in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of

IL- $2R\alpha$  has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas.

## **Protein Information**

Name IL2RA

**Function** Receptor for interleukin-2. The receptor is involved in the regulation of

immune tolerance by controlling regulatory T cells (TREGs) activity. TREGs

suppress the activation and expansion of autoreactive T-cells.

**Cellular Location** Membrane; Single-pass type I membrane protein.

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