

IL-2 Ra (Interleukin 2 Soluble Receptor alpha)

Analyte: sIL-2R α

Specimen Type: Serum, Inquire for additional option(s)

Optimum Volume: 0.5mL

2-8°C

-20°C

-70°C

5 days

6 months

2.3 years

Reporting units: pg/mL

Method: ELISA

Biological or Clinical Significance:

The biological activities of IL-2 are mediated by its binding to a multi-molecular cellular receptor complex. The receptor consists of three glycoprotein chains, an alpha chain (IL-2 R α), a beta chain (IL-2 R β), and a gamma chain (IL-2 R γ) which act together to form a high affinity receptor that transduce the IL-2 signal. The gamma chain has only more recently been shown to be necessary for high affinity binding, ligand internalization and signaling. A model of the IL-2 receptor complex would describe the high affinity receptor as an $\alpha\beta\gamma$ trimer, in which all three chains are in contact with the ligand. Alone, IL-2 R α binds IL-2 with low affinity, but is unable to transduce a signal. A soluble form of IL-2 R α appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2 R α is unclear, but increased levels of the soluble IL-2 R α in biological fluids reportedly correlate with increased immune system activation. Results of a number of studies suggest a correlation of levels of IL-2 sR α in serum with activity of autoimmune diseases such as rheumatoid arthritis and systemic lupus erythematosus (SLE).

Principle of Test Method:

The IL-2ra method is a solid phase ELISA designed to measure IL-2ra in cell culture supernates, serum and plasma. This assay employs the quantitative sandwich enzyme immunoassay technique.