Pacific Biomarkers
The Value of Expertise

IL-6 (Interleukin-6)

Analyte: Interleukin - 6

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

Optimum Volume: 1.0 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
5 days	26 days	2.3 years

Reporting Units: pg/mL

Method: ELISA

Biological or Clinical Significance:

Interleukin 6 (IL-6) is a multifunctional cytokine that has a major role in initiation and promulgation of the inflammatory and immune responses.

The biological activities of IL-6 are initiated by binding of the cytokine to a high-affinity receptor complex consisting of two membrane glycoproteins: An 80 kDa component receptor that binds IL-6 with low affinity (IL-6R) and a signal-transducing component of 130 kDa (gp130) that does not bind IL-6 by itself, but is required for high-affinity binding of the IL-6 by the complex.

A soluble form of the IL-6R with a molecular weight of approximately 50 kDa has been found in the urine of healthy adult humans, in the culture medium conditioned by the growth of a human myeloma cell line, in culture supernates from PHA-stimulated human PBMC and HTLV-1-positive T cell lines, and in the serum of HIV-seropositive blood donors. This soluble form of the receptor apparently arises from proteolytic cleavage of membrane-bound IL-6R.

It has been suggested, that pathological states involving elevated levels of IL-6 might also be associated with increased production of soluble IL-6R.

Principle of Test Method:

The IL-6 assay is a solid-phase ELISA that employs the quantitative sandwich enzyme immunoassay principle.

References:

1. Knudsen, LS, Christensen, IJ, Lottenburger, T, Svendsen MN, Nielsen HJ, Nielsen L, Horslev-Petersen K, Jensen JEB, Kollerup G, and Johansen JS. Pre-analytical and biological variability in circulating interleukin 6 in healthy subjects and patients with rheumatoid arthritis. Biomarkers 2008;13:59-78.