

## IL-18 (Interleukin-18)

**Analyte:** Interleukin-18

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

**Optimum Volume:** 0.5 mL

**Stability:**

2-8 Degrees C	-20 Degrees C	-70 Degrees C
2 days	11 days	2 years

**Reporting Units:** pg/mL

**Method:** ECLIA (Electrochemiluminescent Immuno-assay)

**Biological or Clinical Significance:**

Interleukin 18 (IL-18) is an 18kDa novel cytokine, which has been identified as a co-stimulatory factor for production of interferon-gamma (IFN-  $\gamma$ ) in response to toxic shock. It shares functional similarities with IL-12. IL-18 is synthesized as a precursor 24kDa molecule without a signal peptide and must be cleaved to produce an active molecule. It has been reported that IL-18 is produced from Kupffer cells, activated macrophages, keratinocytes, intestinal epithelial cells, osteoblasts, adrenal cortex cells and murine diencephalon.

IL-18 acts on T helper 1-type T (Th1) cells and, in combination with IL-12, strongly induces production of IFN-  $\gamma$  by these cells. Pleiotropic effects of IL-18 have also been reported, including enhancement of IFN-  $\gamma$  and granulocyte macrophage colony-stimulating factor (GM-CSF) production in peripheral blood mononuclear cells, production of T helper type 1 cytokines, IL-2, GM-CSF and IFN-  $\gamma$  in T cells, and enhancement of Fas ligand expression by T helper type 1 cells.

**Principle of Test Method:**

The IL-18 assay is a sandwich immunoassay using electrochemiluminescent detection.

**References:**

1. Blankenberg S, Tiret L, Bickel C, Peetz D, Cambien F, Meyer J, Rupprecht HJ. Interleukin-18 is a strong predictor of cardiovascular death in stable and unstable angina. *Circulation*. 2002; 106:24-30.