

Interleukin 6

General:

Interleukin-6 (IL-6) is a protein that in humans is encoded by the IL6 gene. IL-6 is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine. It is secreted by T cells and macrophages to stimulate immune response, e.g. during infection and after trauma, especially burns or other tissue damage leading to inflammation. In terms of host response to a foreign pathogen during infection, IL-6 has been shown, in mice, to be required for resistance against the bacterium *Streptococcus pneumoniae*.

IL-6 is also a myokine, a cytokine produced from muscle, and is elevated in response to muscle contraction. It is significantly elevated with exercise, and precedes the appearance of other cytokines in the circulation. During exercise, it is thought to act in a hormone-like manner to mobilize extracellular substrates and/or augment substrate delivery.

Additionally, osteoblasts secrete IL-6 to stimulate osteoclast formation. Smooth muscle cells in the tunica media of many blood vessels also produce IL-6 as a pro-inflammatory cytokine. IL-6's role as an anti-inflammatory cytokine is mediated through its inhibitory effects on TNF-alpha and IL-1, and activation of IL-1ra and IL-10. As a proinflammatory cytokine IL6 is associated with chronic inflammatory and autoimmune diseases as well as initiating acute local and systemic infections such as sepsis, systemic inflammatory response syndrome (SIRS) and **acute pancreatitis**. With acute pancreatitis an IL6-increase can be detected earlier (12-24 h) as CRP (48-72 h).

Indication: Suspicion of acute pancreatitis, acute inflammatory infection, differentiation of severity, prognostic marker for pancreatitis

Preanalytics: Whole blood sample within 30 min. after withdrawal centrifuge and decant. Transport refrigerated to lab, dispatch frozen

Material: 1 ml serum, **Frozen**

TAT: 1-2 days, FML

Method: CLIA

Units: pg/mL

Ref.- range: < 7.00

For complete list of laboratory tests offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>