

IL-1 β (Interleukin-1 β)

Analyte: Interleukin-1 β

Specimen Type: Serum, EDTA Plasma

Optimum Volume: 1 mL

2-8°C

-20°C

-70°C

5d; unstable*

6 months

1 year

Reporting units: pg/mL

Method: ELISA

Biological or Clinical Significance:

Interleukin 1 (IL-1) includes two distinct proteins, IL-1 α and IL-1 β , that play central roles in acute and chronic inflammation, both locally and systemically. Human IL-1 β is synthesized as a procytokine (269 amino acid) that is cleaved by IL-1 β -converting enzyme to mature IL-1 β (153 amino acid, 17 kDa) plus a prosegment.

IL-1 β is produced primarily by monocytes and macrophages but also by astrocytes, oligodendroglia, adrenal cortical cells, NK cells, endothelial cells, keratinocytes, megakaryocytes, platelets, neurons, neutrophils, osteoblasts, Schwann cells, trophoblasts, T cells, and fibroblasts. The most extensively studied function of IL-1 β is initiation of inflammation. Bacterial endotoxin or a variety of non-microbial inflammatory substances induces production of IL-1, which is released into the local environment.

IL-1 is associated with bone formation and remodeling, insulin secretion, appetite regulation, fever induction, neuronal phenotype development, and IGF/GH physiology.

Principle of Test Method:

The IL-1 β assay is a solid-phase ELISA that employs the quantitative sandwich enzyme immunoassay principle. *Note: Refrigerated stability is 5 days for serum and is limited/unstable for EDTA plasma.