

## CXCL-10 (IP-10)

**Analyte:** CXCL-10 (IP-10)

**Specimen Type:** Serum

**Optimum Volume:** 0.5 mL

**2-8°C** **-20°C** **-70°C**

5 days TBD TBD

**Reporting units:** pg/mL

**Method:** ELISA

### Biological or Clinical Significance:

IP-10 (interferon-gamma inducible protein 10 kDa), also known as CXCL10, was originally identified as an IFN- $\gamma$ -inducible gene. It is induced in a variety of cells in response to IFN- $\gamma$  and LPS. In contrast to other CXC chemokines, IP-10 has no chemotactic activity for neutrophils. It is a pleiotropic molecule that appears to target activated T cells and monocytes. IP-10 inhibits bone marrow colony formation and angiogenesis. It can also stimulate NK and T cell migration, regulate T cell maturation and modulate adhesion molecule expression.

IP-10 expression has been associated with HIV infection. It can contribute to the accumulation of activated T cells in the cerebrospinal fluid compartment in HIV-1 infected individuals. The retroviral transactivator, HIV-1 Tat, is a potent inducer of IP-10 expression in astrocytes.

IP-10 expression has also been shown to be significantly elevated in astrocytes within the brains of Alzheimer's disease patients. Astrocytes expressing IP-10 are commonly associated with senile plaques.

### Principle of Test Method:

The IP-10 immunoassay is a solid-phase ELISA designed to measure human IP-10 in cell culture supernates, serum, plasma and saliva. This assay employs the quantitative sandwich enzyme immunoassay technique.