

## **HBT ELISA TEST KITS FOR HUMAN IP-10**

The Hbt Human IP-10 kits have been developed for the quantitative measurement of natural and recombinant Human chemokine IP-10 in serum, plasma and culture medium.

IP-10, Interferon-gamma-inducible 10 kD protein, is a CXC chemokine with chemoattractant properties for CD4-positive T cells and inhibits early normal and leukemic hemopoietic progenitor proliferation. This ELR motive negative CXC chemokine has strong angiostatic effects. IP-10 is produced by a wide variety of cell types ranging from neutrophils and monocytes to hepatocytes and keratinocytes. The cytokine is reported to be involved in a scala of inflammatory pathologies such as HIV encephalitis, cutaneous T cell lymphoma, chronic hepatitis and acute anterior uveitis. Various observations strongly suggest a role for the CXC chemokines IL-8 and IP-10 in the regulation of angiogenic activity in cancer and in idiopathic pulmonary fibrosis. The ELISA assay can be used to quantify IP-10 in tissue culture supernatants of human cell cultures. The assay is also useful for quantification of IP-10 in plasma and serum samples.

### **PRINCIPLE OF THE TEST**

The Hbt Human IP-10 ELISA test kit is a solid-phase enzyme-linked immunosorbent assay based on the sandwich principle. Samples and standards are incubated in microtiter wells coated with antibodies recognizing Human IP-10. During this incubation Human IP-10 is captured by solid bound antibody. Unbound material present in the sample is removed by washing. Next biotinylated second antibody (tracer) to Human IP-10 is added to the wells. If IP-10 was present in the sample, the tracer antibodies will bind to the captured IP-10. The excess tracer is removed by washing. Next a streptavidin-peroxidase conjugate is applied to the wells, this conjugate reacts specifically with the biotinylated tracer antibody bound onto the detected IP-10. The excess streptavidin-peroxidase conjugate is removed by washing and substrate, tetramethylbenzidine (TMB) is added to the wells. Colour develops proportionally to the amount of human IP-10 present in the sample. The enzyme reaction is stopped by the addition of citric acid and the absorption at 450 nm is measured with a spectrophotometer. A standard curve is obtained by plotting the absorptions versus the corresponding concentrations of the known standards. The human IP10 concentration of samples with unknown concentrations, which are run concurrently with the standards, can be determined from the standard curve.

### **SPECIAL FEATURES OF THE KIT**

- Ready-to-use (i.e. pre-coated microwells).
- High specificity.
- High reproducibility
- High sensitivity. The minimum concentration which can be measured is 20 pg/ml of IP-10.
- Large measurable concentration range. Standard curve from 20-5,000 pg/ml.
- Efficient format. Two plates with each twelve 8-well strips allow free choice of batch size for the assay.
- Simple, rapid procedure. Four pipetting steps are required to complete the assay. Working time 3½ hours.

### **AVAILABILITY**

The Hbt Human IP-10 tests are available in kits for 2 x 96 determinations.

**PRODUCT NUMBER: HK311**

Hbt Human IP-10 ELISA Kit

For research purposes only.

Caution: Not for use in humans.