



HBT ELISA TEST KIT FOR MOUSE sIL-1 R1

The **Hbt** mouse sIL-1 R1 ELISA kit has been developed for the quantitative measurement of soluble mouse interleukin-1 receptor type I in serum, plasma and cell culture supernatant. The IL-1 system includes two agonists (IL-1alpha and IL-1beta), converting enzymes, antagonists, two receptors (IL-1 RI and IL-1 RII) and the IL-1 receptor accessory protein. Interleukin-1 signal is transduced through the type I receptor. In normal serum/plasma of mouse sIL-1 R1 cannot be detected. After inflammation such as peritonitis and colitis elevated sIL-1 R1 levels can be found.

PRINCIPLE OF THE TEST

The Hbt Mouse sIL-1 R1 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 mouse sIL-1 R1. During this incubation mouse sIL-1 R1 is captured by solid bound antibody. Unbound material present in the sample is removed by washing. Next biotinylated second antibody (tracer) to mouse sIL-1 R1 is added to the wells. If sIL-1 R1 was present in the sample, the tracer antibodies will bind to the captured sIL-1 R1. 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 captured sIL-1 R1. Excess streptavidin-peroxidase conjugate is removed by washing and substrate, tetramethylbenzidine (TMB), is added to the wells. Colour develops proportionally to the amount of mouse sIL-1 R1 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 mouse sIL-1 R1 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 50 pg/ml of sIL-1 R1.
- 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 Mouse sIL-1 R1 ELISA test is available in a kit for 2 x 96 determinations.

PRODUCT NUMBER: HK206 Hbt Mouse sIL-1 R1 ELISA Kit

For research purposes only.

Caution: Not for use in Humans.