

## HBT ELISA TEST KIT FOR HUMAN I-FABP

The Hbt human Intestinal FABP kit has been developed for the quantitative measurement of human intestinal FABP in serum, plasma and urine. Fatty acid binding proteins (FABP) are small (approximately 13-14 kD) intracellular proteins with a high degree of tissue specificity. Intestinal FABP is specifically localized in the epithelium cells in the small bowel. Normally I-FABP is undetectable in serum. FABP leaks due to its small size rapidly out of damaged cells leading to a rise in blood and urine levels. Many observations indicate that I-FABP is a useful biochemical marker for intestinal cell damage in vivo and in vitro. Ischemically damaged cells are characterized histologically by absence (or low presence) of FABP facilitating recognition of areas of ischemically damaged cells.

The kit can also be used for the measurement of sheep and swine I-FABP.

### PRINCIPLE OF THE TEST

The Hbt human I-FABP ELISA 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 I-FABP. During this incubation human I-FABP is captured by the solid bound antibody. Unbound material present in the sample is removed by washing. Biotinylated second antibody (tracer) to human I-FABP is added to the wells. If human I-FABP was present in the sample, the tracer antibodies will bind to the captured I-FABP. Excess tracer is removed by washing. Streptavidin-peroxidase conjugate is applied to the wells, this conjugate reacts specifically with the biotinylated tracer antibody bound onto the detected I-FABP. 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 I-FABP present in the sample. The enzyme reaction is stopped by the addition of citric acid and the absorbance at 450 nm is measured with a spectrophotometer. A standard curve is obtained by plotting the absorbance versus the corresponding concentrations of the I-FABP standards. The human I-FABP 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 (ie. pre-coated microwells).
- High specificity for I-FABP due to the use of two monoclonal antibodies directed against different epitopes on the I-FABP molecule.
- Cross-reacts with sheep and swine I-FABP.
- The minimum concentration which can be measured is 20 pg/ml I-FABP.
- Large measurable concentration range. Standard curve from 20-5,000 pg/ml.
- Efficient format. 2 plates with twelve disposable 8-well strips allow free choice of batch size for the assay.
- Standardization. The calibration standards have been standardized by Hbt human I-FABP.
- High reproducibility.
- Simple, rapid procedure. Four pipetting steps are required to complete the assay. Working time 3½ hours.

**AVAILABILITY:** The Hbt human I-FABP test is available in kit for 2x96 determinations.

**PRODUCT NUMBER: HK406**

Hbt human I-FABP test kit  
Cross-reacts with sheep and swine I-FABP

For research purposes only.  
Caution: Not for use in humans.