Compatible Devices

Dry Fluorescence Immunoassay Analyzer
AFS-1000

Single Channel

Dry Fluorescence Immunoassay Analyzer
AFS2000A

12 Channels

Testing Process

Add 80μL and do chromatography for 15 minutes

The analyzers have the function of automatic quantitative detection, and the result can be printed out or uploaded through LIS

Product Advantages

- One sample for one testing takes only 15 minutes, generating two results at the same time, which is time-saving and effortless.
- Only 80μl sample (plasma, cerebrospinal fluid, hydrothorax and ascites) is needed, which is helpful in case of difficult sampling.
- POCT device features one-touch operation for simplicity and high efficiency.
- Cold chain is not needed as the reagent can be stored at room temperature, which helps reduce the operating costs; the shelf life of the reagent is 18 months, so there is no need to worry about the expiration problem, which avoids return and replacement of products.

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Please see the instruction for contraindications or cautions

YOUBEST™ 优博思™ HBP/PCT joint testing for earlier, more accurate and more convenient diagnosis

The Earlier Infections Diagnosed, The Sooner Risks Detected

HBP

Heparin-Binding Protein (HBP) Rapid Test Kit

(Quantitative Immunofluorescence)

YouBest (Zhejiang) Biotechnology Co., Ltd.

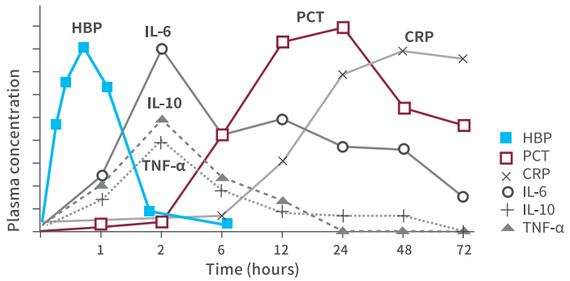
YOUBEST 优博思™

HBP/PCT joint testing for earlier, more accurate and more convenient diagnosis

HBP

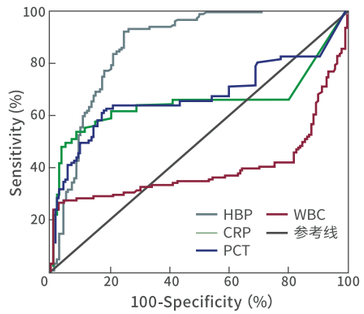
Heparin-binding protein (HBP) is a kind of protein stored in neutrophil granules. HBPs are produced in the course of maturation of neutrophils. Most of them are stored in azurophilic granules and a few of them are stored in secretory vesicles and plasma membranes.
HBP level will be elevated due to bacterial infections, while it is not for non-bacterial infections.

Dynamics curves of various inflammatory markers in the body following a single endotoxin challenge



CRP: Rise in 6-8h; peak in 24-48h; half-life: 19h
PCT: Significantly rise in 2-6h; peak in 12-48h; half-life: 20-35h

ROC curve of early bacterial infection markers in newborns



CRP: Low specificity with rise of level detected only after 12h

IL-6: CRP Featuring early detection but with specificity even lower than CRP

PCT: A systemic infection marker without a universally established cutoff value

HBP: With specificity significantly better than CRP, elevated earlier than IL-6 and 0.5h half-life; fast rise of level in early stage of infection and rapid decline when patient's condition is improved

HBP indicates the best diagnostic efficacy among four markers

Features and Applications

Identify and diagnose bacterial infections as early as possible, especially for post-surgery, hospital infection and pediatric infection

HBP is the current marker of bacterial infections detected earlier than any others

For Surgery Departments (Neurosurgery, cardiac surgery, orthopedics…)

To detect postoperative infections as early as possible benefits patient's prognosis, reduce days of hospital stay and lower treatment costs.

For Pediatrics and Respiratory Medicine

It can reduce the probability of misdiagnosing bacterial infections as viral infections during initial diagnosis, enabling timely and precise use of antibiotics, thereby preventing a mild case from progressing to a severe one.

When PCT is at cutoff values, HBP can increase accuracy in the bacterial infection diagnosis

The reference range of HBP distributes evenly and the HBP level increases significantly at the early stage of infections or in a mild case.
HBP/PCT joint testing remarkably increases the diagnostic accuracy.

For ICU, Infectious Diseases Department and other Wards

Especially in case of patients with several diseases, the HBP/PCT joint testing can help doctors determine more accurately whether they have comorbidities of bacterial infections.

Bacterial Infection

An 80-year-old female patient admitted to hospital for "recurrence of abdominal distension for 3 years and disorders of consciousness for 3 hours"
Physical examination: lethargic sleep, hepatic face, no jaundice of skin or mucosa, cardiopulmonary (-), distended abdomen with tenderness and guarding.
Laboratory findings: WBC 3.89 × 10^9/L, CRP 35.9 mg/L, PCT 0.1ng/ml, HBP 44.39ng/ml.
Admission diagnosis: 1. Spontaneous bacterial peritonitis (bacterial infection); 2. Chronic liver failure; 3.Autoimmune hepatitis, decompensated cirrhosis, portal hypertension, ascites; 4. Hepatic encephalopathy.
Treatment: Levofloxacin and Mezlocillin-Sulbactam

Non-bacterial Infection

A 25-year-old male patient admitted to hospital for "yellow discoloration of the body and eyes, nausea for 7 years, yellow urine and eyes for one week"
Physical examination: Severe jaundice of skin and mucosa, cardiopulmonary (-), soft abdomen without tenderness or distension, lower extremities without edema.
Laboratory findings: WBC4.68^9/L, CRP 5.44mg/L, PCT 0.53ng/mL, HBP 8.3ng/mL
Admission diagnosis: Chronic Severe Viral Hepatitis B (without bacterial infection)

Monitoring progression of disease and guiding the use of antibiotics

HBP level is positively correlated with the degree of infection

For ICU and other Wards

Half-life of HBP is short, lasting only half an hour, and HBP's level sees a rapid decline when the patient's condition is improved. Consecutive testing helps observe the progression of diseases, monitor the efficacy of infection treatment, and determine better and more quickly whether the antibiotics used are effective, whether it is necessary to change the medicines and when it is appropriate to discontinue medications.

A warning indicator for respiratory failure

For Respiratory Department and ICU

The lung tissue damage caused by the infection in patient's lungs will result in an abnormal increase of HBP level, indicating the possibility of respiratory failure.