Multiple Compatible Devices

AFS-1000

Semi-automatic;single Channel

AFS2000A

Semi-automatic;12 Channels

More device models:
FIC-M6、FIC-M6G、FIC-A1600、FIC-S100

Simple Operations

① 

Centrifuge at 3000-4000rpm for 5-10min

② 

Collect supernatant for diluting 100 times and then shake well

③ 

Add 80μL mixed solution and do chromatography for 15min

④ 

Use the analyzer for automatic quantitative detection. The result can be printed out or uploaded through LIS

Operate the automatic devices according to the analyzer' s defined process

· POCT device featuring one-touch operation for simplicity and high efficiency can give results within 15min

· Both plasma and serum can be tested without a requirement for specific blood collection tubes. There are no limitations when co-tested with other markers

Advantages and Features

HNL, a new marker for diagnosis of bacterial infections

- The rapid test has been launched first in China
- Both sensitivity and specificity are higher than 90% and Effective for diagnosing early-stage localized infections
- Preferred marker for orthopedic infectious diseases
- High immediacy, excellent consistency, and effective monitoring of the therapeutic effect of antibiotics
- 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

References:
1. Xu SY, Pauksen K, Venge P. Serum measurements of human neutrophil lipocalin(HNL) discriminate between acute bacterial and viral infections. [J] Scand J Clin Lab Invest1995: 55: 125-131.
2. Per Venge (2018): Human neutrophil lipocalin (HNL) as a biomarker of acute infections, Upsala Journal of Medical Sciences, DOI: 10.1080/03009734.2017.1420112
3. Jinpeng Sun, Peng Xiao, Xuejian Wu. Expression and clinical significance of human neutrophil lipocalin (HNL) in serum in orthopedic infectious diseases [J]. Chinese Journal of Experimental Surgery, 2019, 36 (07): 1316-1318.
4. Hanjiang Liu1, Yali Yu1, Yanli Niu2.Utility of Human Neutrophil Lipocalin as a Diagnosing Biomarker of Prosthetic Joint Infection: A Clinical Pilot Study[J].Infection and Drug Resistance
5. GUSTAV.et al. Human neutrophil lipocalin (HNL) as a diagnostic tool in children with acute infections: A study of the kinetics. Acta Pediatrica, 2005; 94: 661-666.

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Please see the instruction for contraindications or cautions

YOUBEST™ 优博思™

A New Marker for Diagnosis of Bacterial Infections

HNL

Human Neutrophil Lipocalin Rapid Test Kit

(Quantitative Immunofluorescence)

—Sensitivity & Specificity＞90%

YouBest (Zhejiang) Biotechnology Co., Ltd.

YOUBEST™ 优博思™

Human Neutrophil Lipocalin (HNL)

HNL is the main component of the secondary granules of neutrophils. Neutrophil activation occurs when the body has a bacterial infection, and neutrophils aggregate at the infection site under the action of chemokines, phagocytizing and encapsulating pathogens. Subsequently, HNL is shed and released into the bloodstream, causing increased HNL level in the blood.

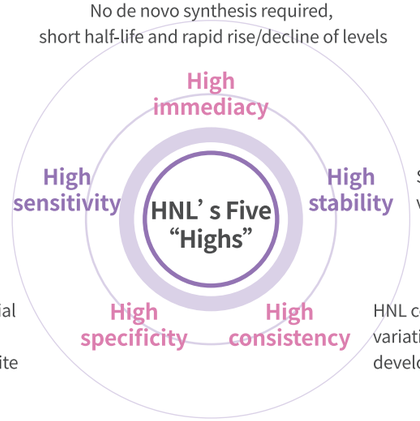
The higher the HNL level in serum is, the more severe the infection is. After the relief or elimination of infections, the HNL level decreases with the patient' s recovery from the disease, and the change in HNL level is consistent with the change in the recovery curve of patients with bacterial infections.

Characteristic of HNL Detection

No de novo synthesis required, short half-life and rapid rise/decline of levels

Localized and mild infections can be early detected

HNL level is elevated in case of bacterial infections other than virus infection, which is not affected by the infected site or the species of pathogenic bacteria



Showing pretty good in vitro stability

HNL concentration shows synchronous variation with the curve of diseases development and outcome

HNL' s Clinical Significance

HNL' s Clinical Significance

Diagnosis

Auxiliary diagnosis of bacterial infections

- Early diagnosis of bacterial infections
- Identification of localized infection focus in case of localized bacterial infections
- Diagnosis of severe bacterial infections and sepsis
- Distinguishing a bacterial infection from a virus infection

Unique

Extraordinary performance in diagnosis of orthopedic infectious diseases

HNL shows high sensitivity and specificity to detect orthopedic infectious diseases

Monitoring

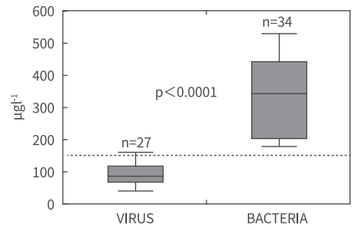
Monitoring therapeutic effect of antibiotics

- Consecutive detection of HNL is an effective method to monitor the therapeutic effect of antibiotics
- Providing scientific groundings for use, replacement or withdrawal of antibiotics

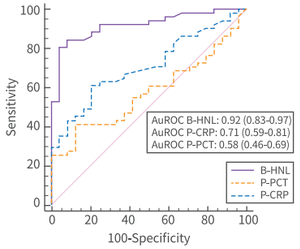
HNL' s Clinical Applications

I. Diagnosis and identification of infectious diseases

- HNL can be used to effectively distinguish a bacterial infection from a virus infection [1]

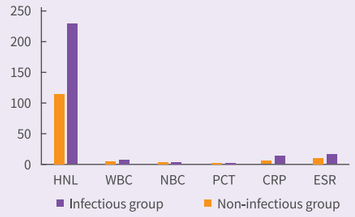


- HNL' s diagnostic sensitivity and specificity are better than those of CRP, PCT and other inflammation markers [2]

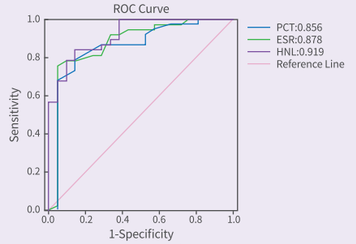


II. Extraordinary performance in diagnosis of orthopedic infectious diseases

- In case of orthopedic infectious diseases, osteomyelitis and postoperative infections, HNL demonstrates better diagnostic efficacy than traditional markers, with enhanced diagnostic significance [3,4]



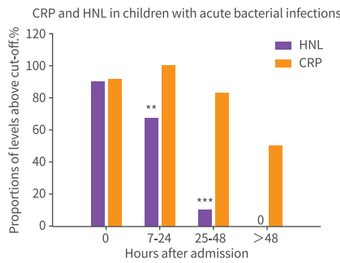
Compared to PCT, CRP and other markers, HNL level sees a notable rise in patients with osteomyelitis. HNL can serve as a specificity indicator for diagnosis of osteomyelitis.

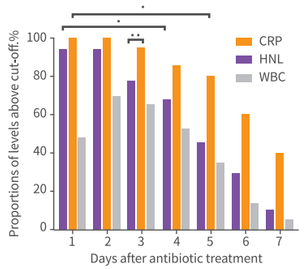


For patients with postoperative infections, the area under ROC curve of HNL is greater than that of PCT and other markers, which indicates the sensitivity and specificity of HNL is higher.

III. Monitoring therapeutic effect of antibiotics

- HNL has short half-life and can instantly reflect the change in patient' s condition, which allows it to perform better in monitoring the therapeutic effect of antibiotics compared to CRP and other markers [5]





HNL testing coupled with testing based on other indicators demonstrates remarkable advantages

HNL has high sensitivity and its level can significantly rise in the early stages of bacterial infections (1-2 hours). HNL testing coupled with PCT and CRP testing can overcome the shortcomings of the single-indicator testing and improve diagnostic accuracy.

HNL

HNL has short half-life (only 20min), which allows it to promptly reflect the change in patient' s disease and be suitable for dynamic monitoring of therapeutic effect of antibiotics, comprehensive assessment of treatment process of infections and optimizing the use of antibiotics.