

# Whole process C-reactive protein detection kit (colloidal gold method)

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## 1, Product introduction

The reagent is used to quantitatively detect the concentration of C-reactive protein in human whole blood, serum or plasma in vitro. Under normal circumstances, the concentration of CRP is very low. In the process of non-specific reaction of various diseases, especially bacterial infection, the content will increase significantly, and the concentration of CRP will rise rapidly within 24 ~ 48 hours. Although the rise of CRP can not be used as an indicator of specific diseases, it is of significance for the determination of a variety of inflammation.

## 2. Interpretation and application of clinical results

Read value	Interpretation of results	Clinical application suggestions
<10mg/L	Negative, normal	Bacterial infection was basically excluded
10~50mg/L	Mild inflammation (Maybe bacterial infection, maybe viral infection, Children ≥ 25mg/L are bacterial infections, Adult uncertainty)	Antibiotics or antiviral therapy should be selected according to other symptoms
≥50mg/L	Basically determine the existence of bacterial infection	Usually bacterial infection
≥100mg/L	Indicates a serious disease process	Severe bacterial infection and virus infection were basically excluded
≥150mg/L	It is a sensitive indicator of sepsis	Severe bacterial infection

### 3, Interpretation of common CRP, hs CRP and whole course CRP

First, ordinary CRP and hs CRP are the same substance. Hypersensitive CRP is not a new CRP, but named according to the higher sensitivity of detection methodology in the low concentration range.

Common CRP is an acute phase protein. When the body is in various inflammatory processes, tissue necrosis and tissue injury (such as after surgery), inflammatory cytokines such as IL-6 release CRP, resulting in an increase in serum concentration. C-reactive protein is usually increased after bacterial infection, but not during viral infection, so it is often used as a preferred index to identify bacterial and viral infection. The detection range of its method is generally  $10 \sim 200 \, \text{mg}$  / L, and the prediction of low-level inflammatory response (such as cardiovascular events) is not sensitive enough in the normal range.

The emergence of hypersensitive C-reactive protein (hs CRP) makes up for this limitation. Hs CRP immunoluminescence and other technologies have greatly improved the sensitivity of detection, making the determination of low concentration CRP more accurate. Because it represents a low degree of inflammatory response, it is more applied to the judgment of cardiovascular disease.

The whole CRP includes ordinary CRP and hypersensitive CRP, with high linear range and high sensitivity.

### 4, Advantages of CRP over WBC

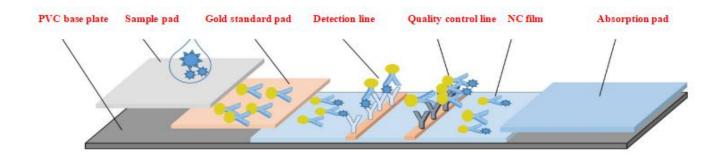
Quick response! There is a significant change in 6-10 hours and reaches the peak in 48 hours; The increment is also large, with a change of 10-1000 times; The half-life is short and decreases rapidly with recovery.

High sensitivity! Especially in the case of extensive tissue infection, up to 96%.

There was no marked increase in CRP during viral infection!

## 5. Product principle

The reagent adopts colloidal gold immunochromatography and double antibody sandwich principle. Colloidal gold quantitative detection reagent uses colloidal gold particles to couple antibodies to gold particles under certain conditions. During detection, CRP in human whole blood, serum or plasma was quantitatively detected by immunochromatographic detection technology.



# 6. Inspection method

Quantitative detection: interpret the results with colloidal gold analyzer for 5min.



# 7. Product advantages

methodological advantages: simple operation! Quick diagnosis, 5minutes to observe the results! Visible to the naked eye!

performance advantages: high sensitivity! Good accuracy! Good repeatability! Wide linear range!