



# C-REACTIVE PROTEIN (CRP)

(CRP LATEX TEST for the qualitative and semiquantitative determination of CRP)

Cat. No. 101-0246  
 Cat. No. 101-0217  
 Cat. No. 101-0189

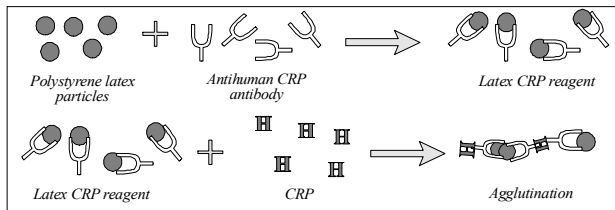
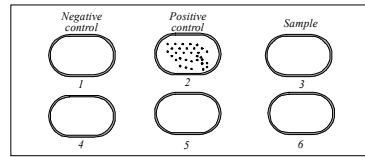
Size 50 tests (complete kit)  
 Size 100 tests (complete kit)  
 Size 100 tests (latex reagent only)

## PRINCIPLE:

CRP LATEX test is based on the immunologic reaction between the CRP and the corresponding antibody coated on the surface of latex particles.

The CRP reagent contains polystyrene latex particles coated with human anti CRP antibody.

When the reagent is mixed with serum containing CRP at a level equal or greater than 6 mg/l, the particles will agglutinate without previous sample dilution.



## SAMPLE:

Serum.

Use only fresh serum or serum stored at + 2 °C to +8 °C for no longer than 48 hours. For longer storage freeze the serum. Reject any lipemic serum.

## REAGENTS:

1. Latex reagent
2. Positive Control
3. Negative Control
4. Disposable slides
5. Disposable sticks

All reagents and controls are ready for use and stable up to the expiry date when stored at + 2 °C to +8 °C. Do not freeze any of the reagents. Shake the latex reagent well before use.

## PROCEDURES

### 1. QUALITATIVE DETERMINATION

Bring all reagents and samples to room temperature before use. Place successively on the slide on field #1, #2, #3 .....

	Negative Control	Positive Control	Sample
Control	50 µl (1 drop)	50 µl (1 drop)	-
Sample	-	-	50 µl (1 drop)
Latex reagent	50 µl (1 drop)	50 µl (1 drop)	50 µl (1 drop)

Mix and spread over the test area with separate sticks. Rotate the slide and observe for any agglutination within 2 minutes under direct light.

## INTERPRETATION OF RESULTS

A smooth homogenous milky suspension indicates a CRP concentration of less than 6 IU/ml (as observed with the negative control).

Agglutination indicates a CRP content more than 6 IU/ml. The sample reaction should be compared with positive control.

## 2. QUANTITATIVE DETERMINATION

Prepare dilutions of the samples with 0.9% sodium chloride solution (saline).

Dilution	1:2	1:4	1:8	1:16	1:32
CRP IU/mL in undiluted sample	12	24	48	96	192
Sample dilution	50 µl	50 µl	50 µl	50 µl	50 µl
Latex reagent	50 µl	50 µl	50 µl	50 µl	50 µl

Mix and spread over the test area with separate sticks. Rotate the slide and observe for any agglutination within 2 minutes under direct light.

The serum titer is defined as the highest dilution showing a positive result. The CRP concentration can then be estimated from the last dilution with visible agglutination.

The approximate CRP concentration may be obtained multiplying the titer by the limit of sensitivity (6 mg/L)

$$\text{Highest dilution with a positive reaction} \times \text{reagent sensitivity (6 mg/L)} = \text{CRP mg/L}$$

## EXPECTED VALUES:

Adults: : < 6 mg/L

## NOTES:

1. Plasma, lipemic serum or microbial contamination may cause non specific agglutination.
2. Reaction times longer than 2 minutes may produce false positive results.
3. The reagents and controls contain sodium azide as a preservative. Avoid ingestion or contact with skin or mucous membranes.
4. The reagents containing sodium azide may combine with copper and lead plumbing to form highly explosive metal azides. Dispose of reagent by flushing with large amounts of water to prevent azide buildup.
5. The positive and negative controls were prepared from human sera which have been tested using FDA approved methods and found to be non-reactive for HBsAG and HIV antibodies. However, no test can offer a complete assurance that human HIV virus, hepatitis B virus or other infectious agents are absent. Hence, the reagent should be handled with the same care as clinical specimen.

## REFERENCES:

1. Warworth, E. Wadsworth, Ch.Clin.Chim.Acta 138(1984).
2. Pepey,M.B., Dash, A.C., Ashley, M.J., Clin.Exp.Immunol. 30, 32-37(1977).
3. Deyo, R.A., Pope, R.M., Parseilin, R.H., J.Rheumatol. 279(1980).