



IM LATEX REAGENT TEST

INTRODUCTION:

Infectious mononucleosis latex is an agglutination slide test for the determination of heterophilic antibodies associated to infectious mononucleosis, benign disease produced by Epstein Barr virus.

The kit consists on a suspension of latex particles coated with purified equine red blood cells antigen, and includes Forssman antigen.

In 1932, Paul described by first time, the presence of agglutinin to sheep erythrocytes in serum of patients with infectious mononucleosis. In 1937, Davidsohn demonstrated that heterophilic antibody present in I.M. patients is absorbed by sheep erythrocytes; in other diseases heterophilic antibodies are absorbed to Forssman antigen (obtained from guinea pig kidney).

CONTENT OF THE KIT

1. I.M. latex.
2. I.M. Positive control
3. I.M. Negative control
4. Mixing sticks
5. Test slide

STABILITY AND STORAGE:

Reagent and control may be used up to the expiry date given on the label, when stored at 2-8°C.

PRECAUTIONS:

For in vitro use only. Reagents contain sodium azide.

METHODS:

Specimen collection. A fresh specimen of serum is recommended.

Haemolyzed or contaminated samples are not suitable for testing. Turbid samples should be clarified by centrifugation before being tested.

Samples should be allowed to reach room temperature and be thoroughly mixed before tested.

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Material not provided : 0.9% saline solution.

PROCEDURE

QUALITATIVE TEST

Allows the sample and reagents to reach Room Temperature.

1. Place one drop of undiluted sample on first circle of the slide, a drop of positive control and a drop of negative control on the second and third circle respectively.

2. Add one drop of IM latex (after shaking the vial) to the samples, positive control and negative control mix well with stirrings rods and rotate slowly the slide.

3. After 2 minutes check for agglutination; at the same time compare reaction of test sample and controls.

PROCEDURE

SEMI QUANTITATIVE TEST:

Prepare a two-fold serial dilution of . sample in saline (1/2, 1/4, 1/8, 1/16, 1/32, 1/64, 1/128 etc.)

Test each sample dilution as in the qualitative test procedure.

Report results in terms of the greatest serum dilution that produces an agglutination (titre).

EVALUATION:

Marked agglutination indicates the presence of heterophilic antibodies associated with Infectious Mononucleosis.

LIMITATIONS OF THE PROCEDURE:

Heavily lipaemic sera have to be excluded, since they can cause non-specific reactions.

DIAGNOSTIC SIGNIFICANCE:

Positive results are associated with the presence of Epstein Barr virus infection. Most positive serum samples show titre between 1/8 – 1/128.

During first two week infection, 60% of patients develop heterophilic antibodies. During first month of infection, 90% will be positive. In a variable period of time, 10% of patients produce negative results.

NOTES:

Do not freeze reagents.

Do not mix reagents from different lots.

Material used must be free of detergents.

REFERENCES:

1. Paul, J.R., & Bunnell, W.W., Am J.Med. Sci., 183.90 (1932).
2. Davidson, J., JAMA, 108. 289 (1937).