

## RPR SYPHILIS CARD TEST

**IVD** For In-Vitro diagnostic and professional use only

2°C 8°C  
Store at 2 to 8 °C

### INTRODUCTION

Syphilis is a disease caused by infection with the spirochete *Treponema pallidum*. The infection is systemic and the disease is characterized by periods of latency. These features, together with the fact that *T. pallidum* cannot be isolated in culture, mean that serologic techniques play a major role in the diagnosis and follow-up of treatment for syphilis.

Syphilis is categorized by an early primary infection in which patients may have non-specific symptoms, and potentially, genital lesions. Patients tested by serology during the primary phase may be negative for antibodies, especially if testing is performed during the first 1 to 2 weeks after symptom onset. As the disease progresses into the secondary phase, antibodies to *T. pallidum* reach peak titers, and may persist indefinitely regardless of the disease state or prior therapy. Therefore, detection of antibodies to nontreponemal antigens, such as cardiolipin (a lipoidal antigen released by host cells damaged by *T. pallidum*) may help to differentiate between active and past syphilis infection. Nontreponemal antibodies are detected by the rapid plasma reagin (RPR) assay, which is typically positive during current infection and negative following treatment or during late/latent forms of syphilis.

### PRINCIPLE

RPR utilises carbon particles coated with cardiolipin antigen to detect reagin antibodies present in serum or plasma of syphilitic persons.

Specimens that contain reagin cause aggregation of the carbon particles which appear as dark clumps against a white background. The aggregation can be read macroscopically. Non-reactive samples typically appear as a smooth non-aggregated pattern which may form buttons in the centre of the test area.

### MATERIALS

#### MATERIALS PROVIDED

- **RPR carbon antigen reagent:** Contains less than 0.1% sodium azide.
- **Positive Control :** Contains less than 0.1% sodium azide.
- **Negative control:** Contains less than 0.1% sodium azide

- RPR test cards (Optional).
- Plastic sticks.
- Package insert.

**NOTE: This package insert is also used for individually**

**MATERIALS NEEDED BUT NOT PROVIDED**

- Rotator (100rpm).
- Timer.
- Pipettes.

#### PACKED REAGENT

**REF** 8.00.18.0.0100 (2ml latex, 2x0.5 ml control)

### SAMPLES

Fresh serum or plasma. The samples with presence of fibrin should be centrifuged before testing. Do not use highly hemolized or lipemic samples.

### PRECAUTIONS

- For professional in vitro diagnostic use only. Do not use after expiration date.
- Do not eat, drink or smoke in the area where the specimens or kits are handled.
- Always use a fresh pipette tip for every test.
- Handle all negative and positive in the manner as patient specimens.
- Wear protective clothing such as laboratory coats, disposable gloves and eye protection when specimens are assayed.
- The used test should be discarded according to local regulations.
- Components of different human origin have been tested and found to be negative for the presence of antibodies anti- HIV 1+2 and anti-HCV, as well as for HBsAg. However, the controls should be handled cautiously as potentially infectious.

### STORAGE AND STABILITY

All components of the kit are stable until the expiration date on the label when stored tightly closed at 2-8°C.

### PROCEDURES

#### QUALITATIVE PROCEDURE

- **Mix well the RPR reagent before use.**
1. Bring the reagents and samples to room temperature.
  2. Dispense 50 µl of each sample into a separate circle on the card. Use a separate tip for each sample.
  3. Dispense 1 drop of each of positive and negative controls into two additional circles.
  4. Gently shake the dispensing vial and slightly press to remove air bubbles from the needle and the drop obtained is correct.

5. Dispense 1 drop (17.5 µl) of RPR antigen to each circle next to the sample to be tested.
6. Place the card on a mechanical rotator and rotate at 100 r.p.m. for 8 minutes.
7. Observe macroscopically for agglutination within a minute after removing the card from the rotator.

#### SEMI-QUANTITATIVE PROCEDURE

- **Mix well the RPR reagent before use.**

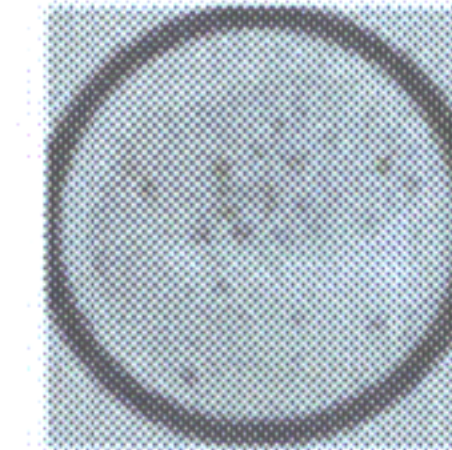
1. Make doubling dilutions from Undiluted to 1:16 normal saline.
  2. Place 50 µl of each dilution in to a separate circle on the test card.
  3. Spread each dilution evenly over the test circle.
  4. Continue as from Qualitative procedure .
- The titer of the sample is expressed as the final dilution which shows aggregation of the carbon particles.

#### PERFORMANCE CHARACTERISTICS

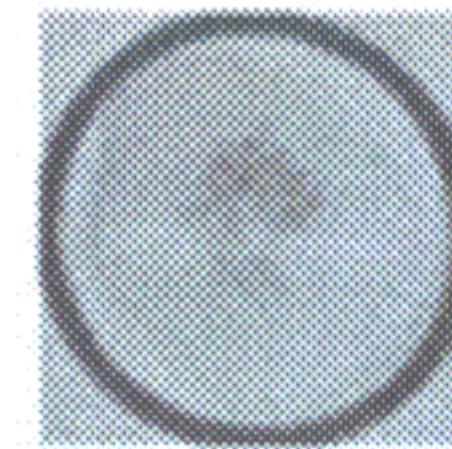
1. **Sensitivity:** 100%.
2. **Specificity:** 100%.

#### INTERPRETATION OF TEST RESULTS

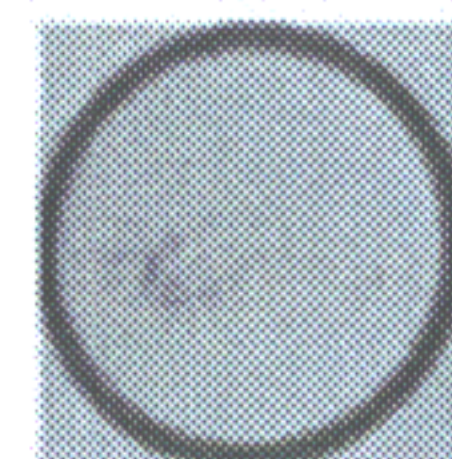
1. **Strong Reactive:** Large clumps of carbon particles with a clear background.



2. **Reactive:** Large clumps of carbon particles somewhat more disperse than Strong Reactive pattern.

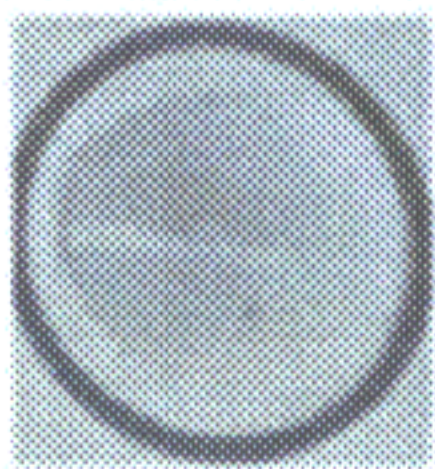


3. **Weak Reactive:** Small clumps of carbon particles with light grey background.

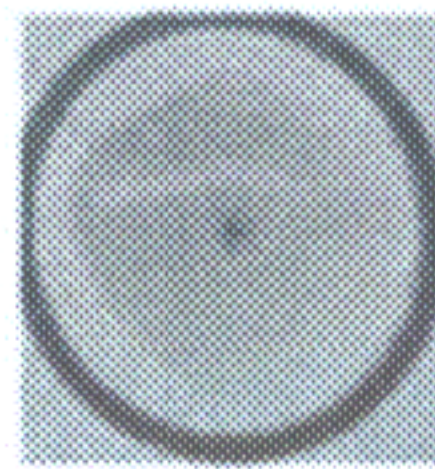




4. **Trace Reactive:** Slight clumping of carbon particles typically seen as a button of aggregates in the centre of the test circle or dispersed around the edge of the test circle.



5. **Non-Reactive:** Typically a smooth grey pattern or a button of non-aggregated carbon particles in the centre of the test circle.

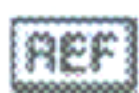





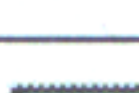


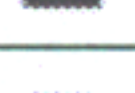
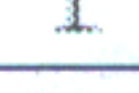







REFERENCES

- Falcone V.H., Stout G.W. and Moore M.B. Jr., PHR 79: 491-495, 1964.

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	Catalogue Number		Temperature limit
	In Vitro diagnostic medical device		Caution
	Contains sufficient for <n> tests and Relative size		Consult instructions for use (IFU)
	Batch code		Manufacturer
	Fragile, handle with care		Use-by date
	Manufacturer fax number		Do not use if package is damaged
	Manufacturer telephone number		Date of Manufacture
	Keep away from sunlight		Keep dry