



VDRL

Test by flocculation on slide

Cat.No. 101-0382 0,5x5 ml - 250 tests
Cat. No. 101-0383 3x30 ml - 1500 tests

PRINCIPLE:

VDRL antigen is a non treponemal preparation specially developed for rapid detection and semi-quantitation by coagulation on a slide of plasma reagent, a group of antibodies detected against tissue components produced by almost every patient infected with **Troponema pallidum**.

The assay is performed by testing the antigen –an association of 0,2g lecithin, 0,03g cardioliolipin and 0,9g cholesterol- against unknown samples. The presence or absence of a visible flocculation or agglutination indicates the presence or absence of circulating antibodies in the samples tested.

SAMPLE:

Fresh clear, non inactivated serum or plasma.

After the clear serum has been separated it may be stored at 2°C - 8°C up to 48ⁿ or at -20°C for the longer periods before testing.

Plasma should be tested within 48h after collection.

Hemolyzed or contaminated samples are not suitable for testing.

REAGENTS:

1. Reagent 1; VDRL buffer sodium azide	0.1%
2. Reagent 2; VDRL antigen sodium azide	0.1%
lecithin	0.2%
cardioliolipin	0.03%
cholesterol	0.9%
3. Positive control* (Human serum); Red cap sodium azide	0.1%
4. Negative control* (Human serum); Blue cap sodium azide	0.1%

*The human sera used in the controls has been tested and found negative for HbsAg and HIV. However a careful handling is always recommended.

PREPARATION AND STABILITY:

The reagent is ready to use.

Shake the reagent before use.

The reagent and controls remains stable until the expiration date printed on the label, if stored between 2°C - 8°C

Do not freeze reagents.

PROCEDURE:

Preliminary operations:

SLIDE TEST PREPARATION

Place 0,4 ml of VDRL buffer in a serological tube. Using the micropipette add 0,5 ml of VDRL antigen drop by drop, shaking gently the tube at the same time. Precipitation of VDRL antigen appears. After addition keep on shaking the tube around 30 seconds. Add 4.1 ml of VDRL buffer at the same tube. Cap the tube. Shake vigorously during 10 seconds.

Wait 5 minutes before using. The VDRL antigen is ready to use even during the next 24 hours.

If required more or less antigen can be precipitated, but always keeping the same proportions.

TUBE TEST PREPARATION

Repeat the same procedure above mentioned to prepare 5 ml of final reagent adds 20 ml of saline solution (NaCl 0.9%). Mix and shake vigorously. After 5 minutes the reagent is ready to use.

SLIDE TEST

1. Bring the test and reagent and samples to room temperature.
2. Place 50 µl of serum sample in the glass slide.
3. Shake slowly the antigen emulsion and add 20 µl.
4. Mix both drops with an stirrer.
5. Rotate handy or mechanical during 4 minutes around 150 rpm.
6. Read presence or absence of agglutination macroscopically under a high intensity lamp or strong daylight. Confirm the results by microscope 10X.

Reading

Positive reaction: Marked and intense visible aggregates are seen. Serum sample reactive.

Slight positive reaction: Slight but definite small aggregates. Serum sample weakly reactive.

Negative reaction. The mixture remains in a smooth suspension with no visible aggregates. Non-reactive serum.

TEST TUBE

1. Place 0,5 ml of serum sample in a serological tube.
2. Add 0,5 ml of precipitated antigen emulsion.
3. Shake the tube during 5 minutes.
4. Centrifuge 2000 r.p.m. 10 minutes
5. Shake 1 minute and read immediately.

Reading

A transparent supernatant indicates a negative result. Any aggregate, slight or definite shows a positive result. Confirm by microscope 10X reading.

ADDITIONAL REQUIREMENTS:

Automatic pipette, stopwatch, clear glass slides, mechanical rotator, adjustable to 150 r.p.m. Microscope 10X.

NOTE:

1. The sensitivity of the test may be reduced at low temperature. The best results are achieved between 23°C – 29 °C.
2. Biological false reaction can occur in early primary infectious and in late latent stages of the disease.
3. With cardioliolipin type biological false positive reactions have been reported in deases such as infectious mononucleosis, lupus erithematosus and virus pneumonia. Pregnancy, narcotic addiction and autoimmune diseases also may give false reactions.
4. This is screening test, positive results must be confirmed with a treponemic test.
5. Error is possibly if plasma contains excessive of anticoagulants.
6. All human material used in connection with the test should be handle cautiously as a potentially infectious.

REFERENCES:

1. Portnoy J., Brewer J.H. and Harris A.D. (1962) US Public Health Report 77, 645.
2. Huber t. Storms S. et al. Jour. Clin. Microbiol. 17 (1983).
3. McGrew B.E. et al. Amer. J. Clin. Path., 50-52 (1968)
4. Stevens R.W. and Stroebel E. (1970) Am.J. Clin. Pathol. 53, 32.