



STREPTOCOCCAL GROUPING SLIDE LATEX TEST

A qualitative latex agglutination test for the detection of Streptococcal groups A, B, C, D, F and G

For *In-Vitro* and professional use only

Store at 2° to 8° C

INTRODUCTION & PRINCIPLES

ATLAS Streptococcal test uses an enzyme extraction procedure to release Carbohydrate antigen from Streptococcal cell walls. The antigens are detected using specific antibodies to groups A, B, C, D, F and G Lancefield. These antibodies are coated on latex particles. When the antigen extract is mixed with the latex reagent, agglutination will occur. The agglutination appears as a visible clumping and can be seen macroscopically.

PRECAUTIONS

1. Prior to use, the Latex reagent should be mixed well to obtain a uniform suspension of the Latex.
2. This kit should be stored in an upright position and refrigerated between 2 to 8°C. Never Freeze.
3. Use a fresh disposable slide and mixer for each test.

4. Always ensure an acceptable performance of the kit by performing the test on the negative and the positive controls before using the kit.
5. The extraction procedure may not kill all organisms; therefore carefully dispose the materials into disinfectant or by autoclaving.

MATERIALS PROVIDED

Group A, B, C, D, F and G latex reagents, Extraction Enzyme dried, positive control, disposable card, disposable mixers.

MATERIALS NEEDED BUT NOT PROVIDED

Water bath, pipette to deliver 50ul, timer and test tubes.

PREPARING THE EXTRACTION ENZYME

The Extract enzyme in this kit comes in two vials dried. Reconstitute with 10ml distilled or deionized water. Once reconstituted store at 2-8°C for a maximum of 3 months or aliquot in 0.4ml volumes and store at -20°C for up to a year.

SAMPLE PREPARATION

Cultures

Note colonial characteristics, haemolysis, and cell morphology before starting the test. Ensure that the organisms to be tested are Gram-positive and catalase-negative. Any blood agar plate culture yielding 2-6 well-separated colonies maybe used, they should have been inoculated from a pure culture of the organism.

PROCEDURES

1. Using a sterile bacteriological loop, pick no more than 2-6 colonies of streptococci (avoiding other types of colony on the plate) and emulsify them in 0.4 ml extraction enzyme. (If a broth culture is to be grouped, pipette 0.1ml of an overnight culture into 0.4ml extraction enzyme).
2. Incubate the mixture in a water bath at 37°C for 10 minutes. Shake the tubes vigorously after 5 minutes incubation. Longer incubation period may lead to false positive results.
3. Re-suspend the latex reagents by gentle agitation. Dispense 1 drop of each latex into the appropriate labeled circle on the test slide.

4. Using a pipette, place 50ul of the extract to each drop of latex reagent, and mix the contents of each circle with a separate mixing stick.
5. Gently rock the slide for one minute.
6. Read the result in normal light and observe for any agglutination.

READING THE RESULT

POSITIVE: If Agglutination appears within one minute.

NEGATIVE: If Agglutination does not appear within one minute.

PROCEDURE LIMITATION

1. This test provides a presumptive diagnosis. Physicians should evaluate all clinical and laboratory findings before making a definitive diagnosis.
2. Faint granularity may be seen in some negative patterns, this should be disregarded.

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