

PNEUMOCOCCUS



STATENS
SERUM
INSTITUT

prevention and control
of infectious diseases
and congenital disorders

- *Simple*
- *Fast*
- *Ready to use*

PNEUMOTEST-LATEX
FOR IN VITRO DIAGNOSTIC USE



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Background

The Pneumotest-Latex kit is simple and fast to use for partial serotyping (group/type) of *S. pneumoniae*. Using the kit 90-95% of the pneumococci most commonly isolated (from blood and CSF) can be typed, including the related groups/types in the 23 valent vaccine.

Application

Overnight bacterial cultures of pneumococci in Todd-Hewitt broth are mixed with the Pneumotest-Latex suspension. Use the Pneumotest-Latex chessboard for determination of group/type (see below). If further typing is needed, use SSI traditional pneumococcal antisera working with the Quellung reaction (Neufeld method).

Description

The 14 latex suspensions (Pool A to I, and P to T) are ready to use and delivered in 1,5 ml plastic vials with a droplet delivery system, administering approximately 10 µl. The antibodies in the latex suspension are raised in rabbits against the capsular polysaccharides present in the pool.

The latex suspension is preserved with 15 mM (0.0975%) sodium azide.



Procedure

The latex agglutination test is performed as follows:

- 1 droplet (10 µl) of bacterial suspension is placed on the plastic slide.
- 1 droplet (10 µl) of latex suspension is also placed on the plastic slide.
- The two suspensions are mixed.

A positive reaction is indicated by an agglutination appearing within 5 to 10 seconds. If the reaction time exceeds 30 seconds, false positive reactions may occur.

Limitations

The Pneumotest-Latex kit is intended for partial typing of pure cultures of pneumococci, preferably grown in Todd-Hewitt broth.

Storage and shelf life

The kit should be kept in a dark place at 2-8°C. The expiry date is printed on the package.

Ordering and Information

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Pool	P	Q	R	S	T	Non-vaccine groups/types
A	1	18 (18F, 18A, 18B, 18C)	4	5	2	
B	19 (19F, 19A, 19B, 19C)	6 (6A, 6B)	3	8		
C	7 (7F, 7A, 7B, 7C)				20	24 (24F, 24A, 24B) 31, 40
D			9 (9A, 9L, 9N, 9V)		11 (11F, 11A, 11B, 11C, 11D)	16 (16F, 16A) 36, 37
E			12 (12F, 12A, 12B)	10 (10F, 10A, 10B, 10C)	33 (33F, 33A, 33B, 33C, 33D)	21, 39
F				17 (17F, 17A)	22 (22F, 22A)	27 32 (32F, 32A) 41 (41F, 41A)
G						29, 34 35 (35F, 35A, 35B, 35C) 42 47 (47F, 47A)
H	14	23 (23F, 23A, 23B)		15 (15F, 15A, 15B, 15C)		13 28 (28F, 28A)
I						25 (25F, 25A) 38, 43, 44, 45, 46, 48

Boldface indicates that the group/type is included in the 23-valent pneumococcal polysaccharide vaccine. () states types within a group.