

PNEUMOCOCCUS

7-10-13-VALENT LATEX KIT

Latex particles coated with
pneumococcal antiserum raised
in rabbits

for *in vitro* diagnostic use



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Application

The Pneumococcus 7-10-13-valent Latex Kit is a ready to use chessboard system for serotyping of *S. pneumoniae* serotypes included in the different vaccines for children. The following serotypes that can be identified are:

7-valent vaccine serotypes: 4, 6B, 9V, 14, 18C,
19F, 23F

10-valent vaccine serotypes: 4, 6B, 9V, 14, 18C,
19F, 23F, 1, 5, 7F

13-valent vaccine serotypes: 4, 6B, 9V, 14, 18C,
19F, 23F, 1, 5, 7F, 3,
6A, 19A

Description

The Pneumococcus 7-10-13-valent Latex Kit contains 7 vials of latex particles coated with pooled pneumococcal antisera raised in rabbits (0.0975% sodium azide as preservation). Cross-reactions have been removed by absorption.

The kit contains reagents for approximately 75 tests.

Principle

When latex particles coated with antiserum are mixed with a homologous antigen the particles will agglutinate. The reaction is visible to the naked eye.

Limitations

Pneumococcus 7-10-13-valent Latex Kit is intended for serotyping of pure cultures of *Streptococcus pneumoniae*.

Kit contents

- 1 vial each of latex particles coated with antisera: Pool I, II, III, IV, V, VI, VII respectively
- 25 disposable reaction cards
(Additional cards can be ordered separately)

Materials required but not provided

- Phosphate buffered saline (pH 7.4) for negative control
- Todd-Hewitt broth (Difco, Oxoid CM189, Sigma T-1438)
- Pipette or any other utility that can make a droplet off approximately 10 μ l
- Stirring stick

or

- Phosphate buffered saline (pH 7.4)
- 5-10% blood agar plate
- 1 μ l loop

Procedure

Do not perform more than 3 reactions simultaneously before reading the results.

1. Use an overnight Todd-Hewitt broth culture showing visible growth or one colony from a 5-10% blood agar plate.
2. Before use of the latex reagent it is very important to bring the bottles to room temperature and shake the bottles.
3. Test all 7 pools included in the kit. Serotype 1, 3, 4, 5 and 14 can be identified immediately using the chessboard. For serotyping beyond the group level of the remaining types, factor latex products or traditional factor antisera has to be purchased.
4. For each reaction add one drop (approximately 10 μ l, squeeze the bottle gently) of latex suspension in a circle on the reaction card.

5. Todd-Hewitt broth culture	5-10% blood agar culture
Apply one drop (approximately 10 μ l) bacterial suspension next to the drop of latex suspension.	Apply 10 μ l phosphate buffered saline next to the drop of latex and suspend 1 colony from the agar plate in the drop of saline ¹ ¹ it is very important not to isolate to much colony material or material from the agar plate since this might give false positive reactions.

6. Mix the two drops with a stirring stick. Use a separate stick for each reaction.

7. Spread to cover the area of the circle.
8. Rock the card slowly and observe for agglutination within 5-10 seconds. Any agglutination after 30 seconds is not a positive reaction.
9. The serotype or group is determined using this chessboard.

Pool	V	VI	VII
I	1	18F, 18A, 18B, 18C	4
II	19F, 19A, 19B, 19C	6A, 6B, 6C	3
III	7F, 7A, 7B, 7C		5
IV	14	23F, 23A, 23B	9A, 9L, 9N, 9V

Additional products

Art. No.	Product	Art. No.	Product
77322	Latex Type 1	77334	Latex Factor 6b
77324	Latex Type 3	77335	Latex Factor 6c
66398	Latex Type 4	77336	Latex Factor 7b
77325	Latex Type 5	77337	Latex Factor 9g
77326	Latex Type 14	77338	Latex Factor 18c
		77339	Latex Factor 18f
		77340	Latex Factor 19b
		77341	Latex Factor 19c
		77342	Latex Factor 23b

Storage and shelf life

Store at 2-8°C in a dark place. Expiry date is printed on the package.

Do not freeze (if the reagents have accidentally been frozen, they should not be used).

Information and ordering

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References

Slotved, H-C. et al., Journal of Clinical Microbiology, 42(6):2518-2522, 2004

Slotved, H-C., Kernn, M.B., Journal of Microbiological Methods, 61:181-186, 2005

Reynolds, R., Journal of Antimicrobial Chemotherapy 62(suppl. 2):ii15-ii28, 2008



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