

# PNEUMOCOCCUS



STATENS  
SERUM  
INSTITUT

prevents and controls  
infectious diseases,  
biological threats and  
congenital disorders

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

PNEUMOTEST-LATEX  
FOR IN VITRO DIAGNOSTIC USE



Statens Serum Institut  
SSI Diagnostica  
2 Herredsvejen  
3400 Hillerød  
Denmark

Tel: +45 4829 9178  
Fax: +45 4829 9179  
microbiology@ssi.dk  
www.ssi.dk

## 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

An overnight bacterial culture of pneumococci (Todd-Hewitt broth) or one colony from a 5-10% blood agar plate suspended in saline 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 using 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 latex suspension is placed on the reaction card.
- 1 droplet (10 µl) of an overnight bacterial culture or a bacterial suspension in saline is placed beside the latex droplet.
- 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.

## 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

Statens Serum Institut  
SSI Diagnostica  
2 Herredsvejen  
3400 Hillerød  
Denmark  
Tel.: +45 4829 9178  
Fax: +45 4829 9179  
ivdorders@ssi.dk (ordering)  
microbiology@ssi.dk (inquiries)  
www.ssi.dk

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