PNEUMOCOCCUS

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- Rapid
- Easy
- Reliable
- **Flexible**

MOCOCC

Group serum

with types:

16900/Lot xxx

Mar 2003



SERUM INSTITUT

prevents and controls infectious diseases, biological threats, and congenital disorders

FOR IN VITRO D

Pneumococcal antisera

For in vitro diagnostic use

Rapid

A single capsular reaction test is performed in less than one minute.

Easy

A simple procedure with ready-to-use solutions based on standard laboratory equipment.

■ Reliable

Many years of experience guarantee a high standard of diagnostic performance.

■ Flexible

With this collection of antisera partial as well as complete typing of all known pneumococci can be obtained.

Since the 1940's the Streptococcus Unit at Statens Serum Institut has manufactured diagnostic pneumococcal antisera.

Pneumococcal antisera from Statens Serum Institut are used by medical centres and vaccine industries all over the world for typing of pneumococci and as inprocess control.

Application

Pneumococcal diagnostic antisera are intended for identification and typing of pneumococci by means of the capsular reaction test.

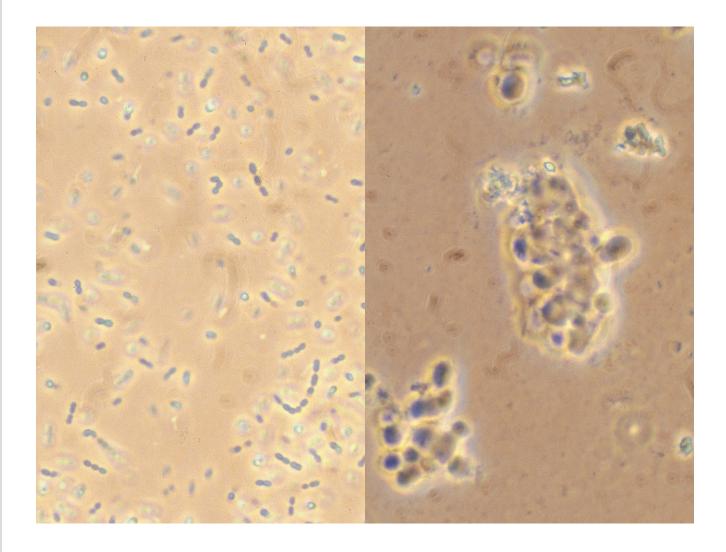
This is a fast and easy-to-perform method that requires only standard microbiological equipment.

Pneumococcal diagnostic antisera can be used for:

- 1. Identification of Streptococcus pneumoniae.
- **2.** Complete typing of all known pneumococci.
- **3.** Typing of only the most dominant or important types (e.g. one of the 23 vaccine types).
- 4. Partial typing of one or several pneumococci.

All pneumococcal diagnostic antisera from Statens Serum Institut can be used alone or combined, depending on the aim of the study.

Apart from the capsular reaction test, SSI's pneumo-coccal antisera are used by microbiologists in various methods such as latex agglutination, coagglutination and counterimmunoelectrophoresis.



Description

Statens Serum Institut manufactures ready-to-use pneumococcal antisera with different specificity.

The antisera are raised in rabbits against the pneumococcal capsular polysaccharides.

All the diagnostic antisera are delivered in vials containing 1 ml each (approx. 300 tests). Larger quantities are available upon request.

The antisera are preserved with 15 mM (0,0975%) sodium azide.

Omni serum

This antiserum contains antibodies to all known pneumococcal types. It can be used directly on e.g. CSF or blood for identification purposes.

Titer: 4 when used in the capsular reaction test.

Pool sera

14 different pooled sera each reacting with 8-14 types. Pools A→I cover all 90 different types. The Pools P→T cover the 21 types and/or groups present in the 23-valent pneumococcal vaccine.

Titer: 8 when used in the capsular reaction test.

Group sera

21 different group sera each reacting with all the types within a group.

Titer: 16 when used in the capsular reaction test.

Type sera

25 different type sera each reacting with 1 type. <u>Titer:</u> 16 when used in the capsular reaction test.

Factor sera

65 different factor sera used to identify the different types within a specific group.

<u>Titer:</u> 4 when used in the capsular reaction test.

Pneumotest

Collection of pneumococcal pool antisera intended for typing and/or grouping of 90-95% of the pneumococci most commonly isolated from blood and CSF.

One kit consists of 12 pooled sera ($A \rightarrow F$, H and $P \rightarrow T$), and can be ordered with or without a positive control (lyophilized Type 1 culture and its homologous Type serum 1).

Anti C-polysaccharide serum

This antiserum contains antibodies that have been raised in rabbits against the cell wall polysaccharide common to all pneumococci. It can be used to identify especially noncapsulated pneumococcal strains. <u>Titer:</u> 16 when used in the capsular reaction test.

The flexibility of the product assortment ensures that the user's requirements for typing are always covered with a minimum of tests.

Based on the close collaboration between the departments for diagnostics, epidemiology and production at Statens Serum Institut, the product assortment is always up-to-date.

Specificity

In pool, type and group sera the cross reactions are eliminated by absorption. In factor sera, cross reactions within the group are eliminated by absorption.

Procedure

The capsular reaction test is performed as follows:

- 1. Mix bacterial suspension and antiserum on a glass slide.
- 2. Place cover slip on top of the mixture.
- **3.** Observe the mixture in a phase contrast microscope with an oil immersion lens.

If the capsule becomes visible the reaction is positive (see illustration). A positive rection is the result of an in situ immunoprecipitation, leading to a change in the refractive index. In addition the bacteria agglutinate.

Limitations

Diagnostic pneumococcal antisera from Statens Serum Institut are intended for the diagnosis of pure cultures of capsulated pneumococci only.

Storage and shelf life

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

Typing support

Pneumococcal strains which can not be typed with any of these antisera may be sent to Statens Serum Institut for further examination.



Information and ordering

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AVAILABLE PRODUCTS

Omni serum				6c	6B	16924
Omni serum			Article No.	6d	6C	73266
	All 91 serotypes		2438	7b	7F, 7A	16925
	Pool se	ra		7c	7A	16926
Pool serum	Reacts with	C 10	Article No.	7e	7B	16927
A B	Types 1, 2, 4, 5	Group 18	16725	7f	7C	16931
C	Types 3, 8 Types 20, 31, 40	Groups 6, 19 Groups 7, 24	16728 16730	7h 9b	19B, 19C 9L, 9N	16933 16934
D	Types 36, 37	Groups 9, 11, 16	16731	9d	9A, 9V	16935
E	Types 21, 39	Groups 10, 12, 33	16733	9e	9N	16936
F	Types 27	Groups 17, 22, 32, 41	16734	9g	9V	16937
G	Types 29, 34, 42	Groups 35, 47	16735	10b	10F, 10B, 10C	16939
н	Types 13, 14	Groups 15, 23, 28	16736	10d	10A, 10B	16940
I	Types 38, 43, 44, 45, 46, 48	Group 25	16737	10f	10C	16941
P	Types 1, 14	Groups 7, 19	16739	11b	11F, 11B, 11C, 11D	16942
Q		Groups 6, 18, 23	16740	11c	11A, 11C, 11D	16944
R	Types 3, 4	Groups 9, 12	16741	11f	11B, 11C	16945
S	Types 5, 8	Groups 10, 15, 17	16742	11g	11F, 11B	16946
Т	Types 2, 20	Groups 11, 22, 33	16743	12b	12F, 12B	16947
Group serum	Group se	era	Article No.	12c 12e	12A, 12B 12B	16948 16949
6	6A, 6B, 6C		16900	15b	15F, 15B	16950
7	7F, 7A, 7B, 7C		16902	15c	15F, 15A	16951
9	9A, 9L, 9N, 9V		16903	15e	15B, 15C	16952
10	10F, 10A, 10B, 10C		16904	15h	15B	16953
11	11F, 11A, 11B, 11C, 11D		16905	16b	16F	16954
12	12F, 12A, 12B		16906	16c	16A	16955
15	15F, 15A, 15B, 15C		16907	17b	17F	16956
16	16F, 16A		16908	17c	17A	16957
17	17F, 17A		16909	18c	18F, 18C	16958
18	18F, 18A, 18B, 18C		16910	18d	18A	16959
19	19F, 19A, 19B, 19C		16911	18e	18F, 18B, 18C	16960
22	22F, 22A		16912	18f	18F	16961
23 24	23F, 23A, 23B		16913 16914	19b	19F 19A	16962 16963
25	24F, 24A, 24B 25F, 25A		16914	19c 19f	19A 19C	16963
28	28F, 28A		16916	20b	33A	16965
32	32F, 32A		16917	22b	22F	16966
33	33F, 33A, 33B, 33C, 33D		16918	22c	22A	16967
35	35F, 35A, 35B, 35C		16919	23b	23F	16968
41	41F, 41A		16920	23c	23A	16969
47	47F, 47A		16921	23d	23B	16970
	Type se	ra		24c	24A	16971
Type serum	Reacts with		Article No.	24d	24F, 24A	16972 16973
1 2	1 2		16744 16745	24e 25b	24B 25F	16973
3	3		16746	25c	25A	16975
4	4		16747	28b	28F	16976
5	5		16748	28c	28A	16977
8	8		16751	29b	35B	16978
13	13		16752	32a	32F, 32A	16979
14	14		16753	32b	32A	16980
20	20		16754	33b	33F, 33A	16981
21	21		16755	33e	33C	16982
27	27		16756	33f	33B, (33C), 33D	16983
29	29		16757	35a	35F, 35A, 35B, 35C	16984
31	31		16758	35b	35F	16986
34	34		16759	35c	35A, 35B, 35C	16992
36 37	36 37		16760 16761	41a 41b	41F, 41A 41F	16994 16995
38	38		16761	41b	35C	16995
39	39		16763	43b	47A	16997
40	40		16764	47a	47F, 47A	16998
42	42		16765	() Weak positive		
43	43		16766		Pneumotest	
44	44		16767			Article No.
45	45		16769	Pneumotest	Pool A \rightarrow F + H and P \rightarrow T	36158
46	46		16770		Pool A \rightarrow F + H and P \rightarrow T + Type 1 control	36159
48	48		16771	Type 1 control	Lyophilized Type 1 culture + Type serum 1	36171
	Factor se	era			Anti C-polysaccharide serum	
Factor serum			Article No.	Anti C noluces	aarida sarum	Article No.
6a 6b	33D 6A		16922 16923	Anti C-polysacch	idilide selulli	3653
35	- C		10723			