

PNEUMOCOCCUS

Key to pneumococcal factor sera

Sero-type ¹	Reactions ² in factor antisera				Antigenic form
	6b	6c	6d		
6A	+	-	-		6a, 6b
6B	-	+	-		6a, 6c
6C	-	-	+		6a, 6d
6D	-	+	+		6a, 6c, 6d
	7b	7c	7e	7f	
7F	+	-	-	-	7a, 7b
7A	(+)	+	-	-	7a, 7b, 7c
7B	-	-	+	-	7a, 7d, 7e, 7h
7C	-	-	-	+	7a, 7d, 7f, 7g, 7h
	9b	9d	9e	9g	
9A	-	+	-	-	9a, 9c, 9d
9L	+	-	-	-	9a, 9b, 9c, 9f
9N	+	-	+	-	9a, 9b, 9e
9V	-	+	-	+	9a, 9c, 9d, 9g
	10b	10d	10f		
10F	+	-	-		10a, 10b
10A	-	+	-		10a, 10c, 10d
10B	+	+	-		10a, 10b, 10c, 10d, 10e
10C	+	-	+		10a, 10b, 10c, 10f
	11b	11c	11f	11g	
11F	+	-	-	+	11a, 11b, 11e, 11g
11A	-	+	-	-	11a, 11c, 11d, 11e
11B	+	-	+	+	11a, 11b, 11f, 11g
11C	+	+	+	-	11a, 11b, 11c, 11d, 11f
11D	+	+	-	-	11a, 11b, 11c, 11e
	12b	12c	12e		
12F	+	-	-		12a, 12b, 12d
12A	-	+	-		12a, 12c, 12d
12B	+	+	+		12a, 12b, 12c, 12e
	15b	15c	15e	15h	
15F	+	+	-	-	15a, 15b, 15c, 15f
15A	-	+	-	-	15a, 15c, 15d, 15g
15B	+	-	+	+	15a, 15b, 15d, 15e, 15h
15C	-	-	+	-	15a, 15d, 15e
	16b	16c			
16F	+	-			16a, 16b, 11d
16A	-	+			16a, 16c
	17b	17c			
17F	+	-			17a, 17b
17A	-	+			17a, 17c
	18c	18d	18e	18f	
18F	+	-	+	+	18a, 18b, 18c, 18e, 18f
18A	-	+	-	-	18a, 18b, 18d
18B	-	-	+	-	18a, 18b, 18e, 18g
18C	+	-	+	-	18a, 18b, 18c, 18e

Sero-type ¹	Reactions ² in factor antisera				Antigenic form	
	19b	19c	19f	7h		
19F	+	-	-	-	19a, 19b, 19d	
19A	-	+	-	-	19a, 19c, 19d	
19B	-	-	-	+	19a, 19c, 19e, 7h	
19C	-	-	+	+	19a, 19c, 19f, 7h	
	22b	22c				
22F	+	-			22a, 22b	
22A	-	+			22a, 22c	
	23b	23c	23d			
23F	+	-	-		23a, 23b, 18b	
23A	-	+	-		23a, 23c, 15a	
23B	-	-	+		23a, 23b, 23d	
	24c	24d	24e			
24F	-	+	-		24a, 24b, 24d, 7h	
24A	+	+	-		24a, 24c, 24d	
24B	-	-	+		24a, 24b, 24e, 7h	
	25b	25c				
25F	+	-			25a, 25b	
25A	-	+			25a, 25c, 38a	
	28b	28c				
28F	+	-			28a, 28b, 16b, 23d	
28A	-	+			28a, 28c, 23d	
	32a	32b				
32F	+	-			32a, 27b	
32A	+	+			32a, 32b, 27b	
	33b	33e	33f	6a	20b	
33F	+	-	-	-	-	33a, 33b, 33d
33A	+	-	-	-	+	33a, 33b, 33d, 20b
33B	-	-	+	-	-	33a, 33c, 33d, 33f
33C	-	+	(+)	-	-	33a, 33c, 33e
33D	-	-	+	+	-	33a, 33c, 33d, 33f, 6a
	35a	35b	35c	29b	42a	
35F	+	+	-	-	-	35a, 35b, 34b
35A	+	-	+	-	-	35a, 35c, 20b
35B	+	-	+	+	-	35a, 35c, 29b
35C	+	-	+	-	+	35a, 35c, 20b, 42a
	41a	41b				
41F	+	+			41a, 41b	
41A	+	-			41a	
	47a	43b				
47F	+	-			47a, 35a, 35b	
47A	+	+			47a, 43b	

23-valent vaccine types are indicated by **boldface**.

¹*Streptococcus pneumoniae* serotype.

²Capsular reactions (Neufeld): + positive, (+) weak positive, - negative. Factor shown in brackets are positive with some antisera, but do not necessarily react with the currently distributed factor antisera.