

Supplementary materials

Original agarose gels in this study

Specimens: respiratory samples tested by genomic PCR, subgenomic RNA PCR and culture-isolation

Patient #	NP swab	Sputum	Saliva	Total
1	4	6	6	16
2	6	4	3	13
3	6	7	4	17
4	7	6	5	18
5	6	6	8	20
6	2	2	3	7
7	4	0	0	4
8	0	3	3	6
9	1	1	1	3
10	2	1	0	3
	38	36	33	107

Additional specimens (CMI revision)

Patient #	NP swab	Sputum	Saliva	Total
11	4	2	1	7
12	6	3	3	12
13	4	4	3	11
14	3	4	3	10
15	3	3	2	8
16	4	3	2	9
17	4	0	0	4
18	3	3	2	8
19	2	1	2	5
20	3	3	2	8
	36	26	20	82

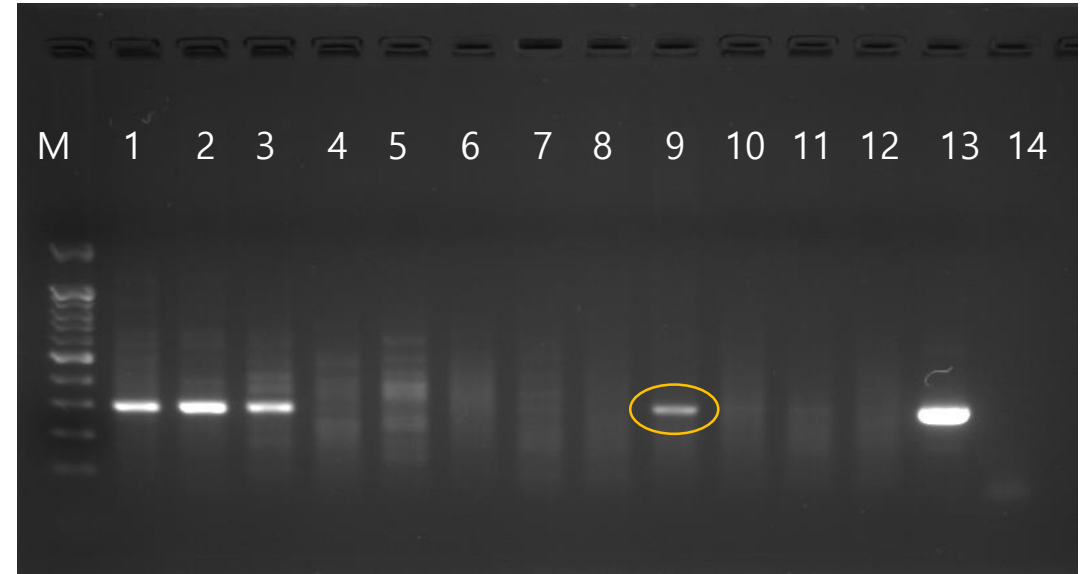
Patient 1: NP

SOD	Band #	SGR-NP	SGR-SP
8	1	P	P
11	2	P	P
12	3	P	P
15	4	N	N
17	5	N	N
20	6	N	N
24	7	N	N
28	8	N	N
32	9	P	P
35	10	N	N
40	11	N	N
42	12	N	N
	13	PC	PC
	14	NC	NC

NP#9 sequencing:
SARS-CoV-2 99%

SP#9 sequencing:
SARS-CoV-2 98%

NP



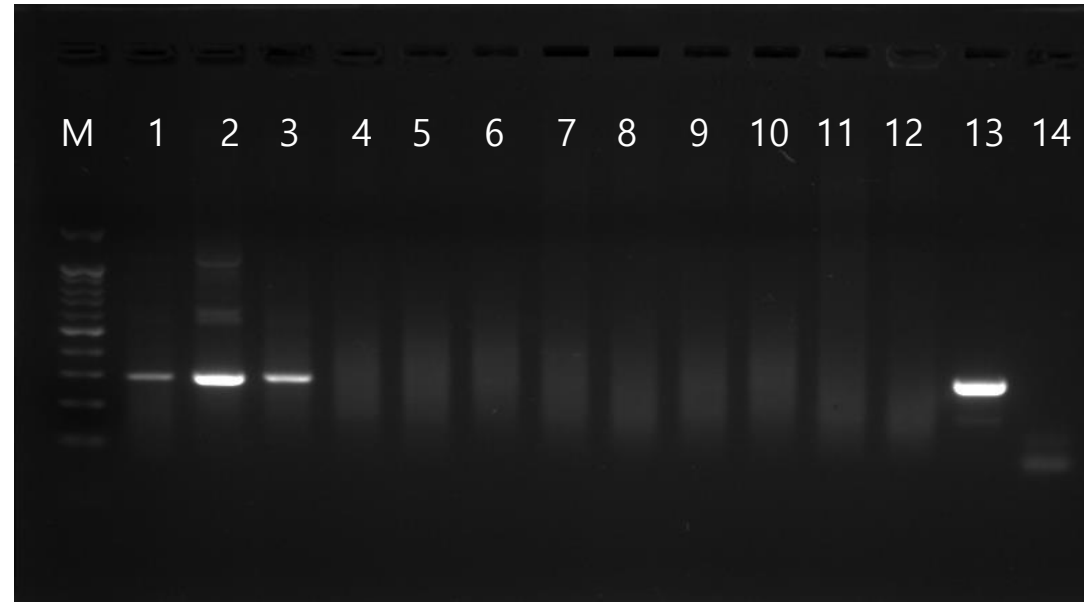
SP



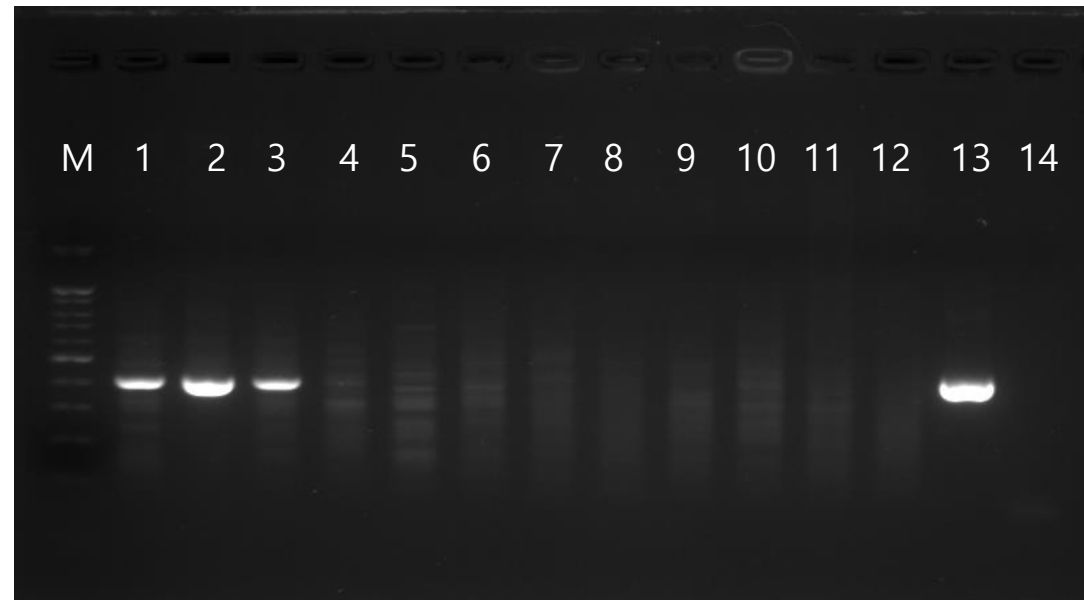
Patient 1: Sputum

SOD	Band #	SGR-NP	SGR-SP
8	1	P	P
10	2	P	P
12	3	P	P
15	4	N	N
17	5	N	N
20	6	N	N
24	7	N	N
28	8	N	N
32	9	N	N
35	10	N	N
40	11	N	N
42	12	N	N
	13	PC	PC
	14	NC	NC

NP



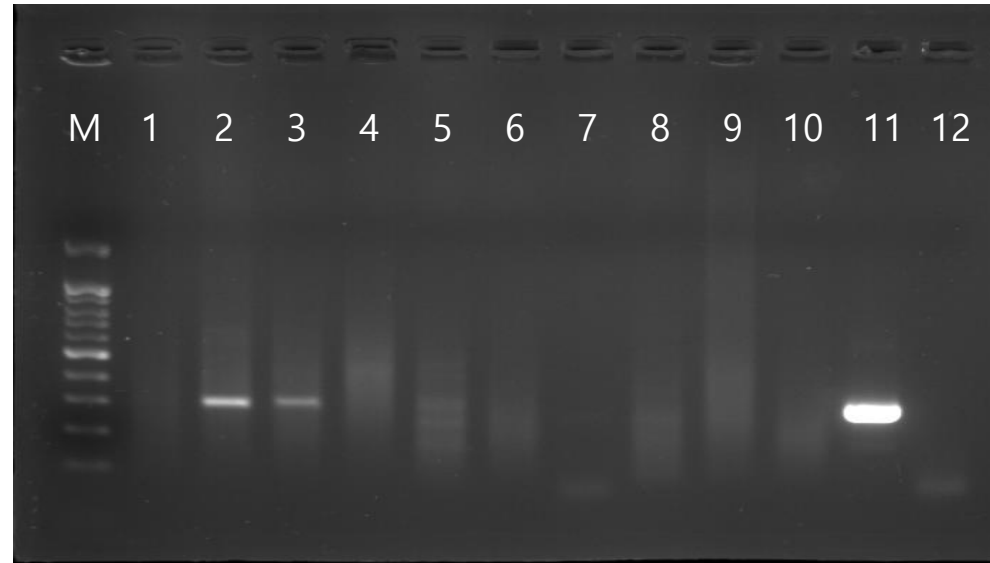
SP



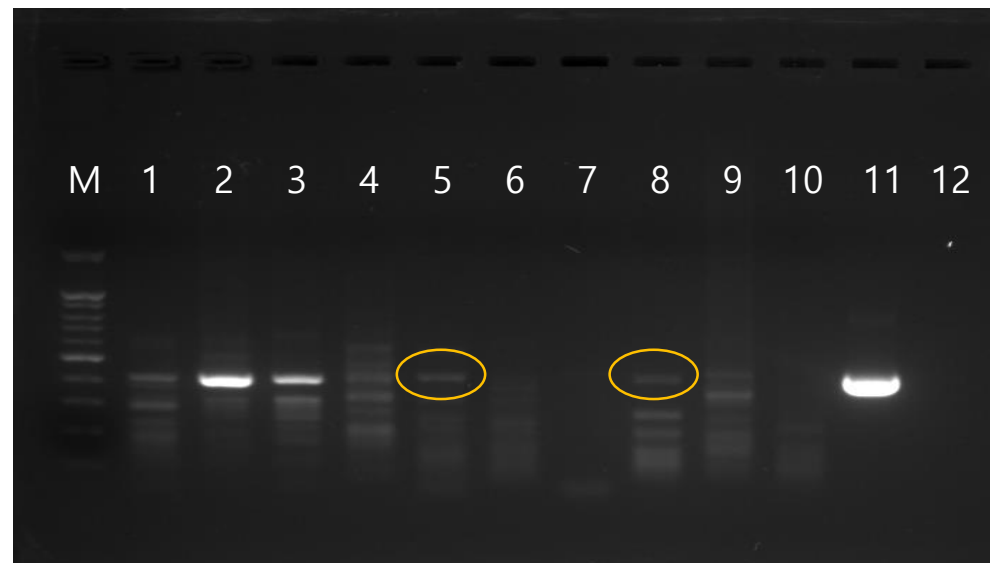
Patient 1: saliva

SOD	Band #	SGR-NP	SGR-SP
8	1	N	P
11	2	P	P
15	3	P	P
17	4	N	N
20	5	N	N
24	6	N	N
28	7	N	N
32	8	N	N
40	9	N	N
42	10	N	N
	11	PC	PC
	12	NC	NC

NP



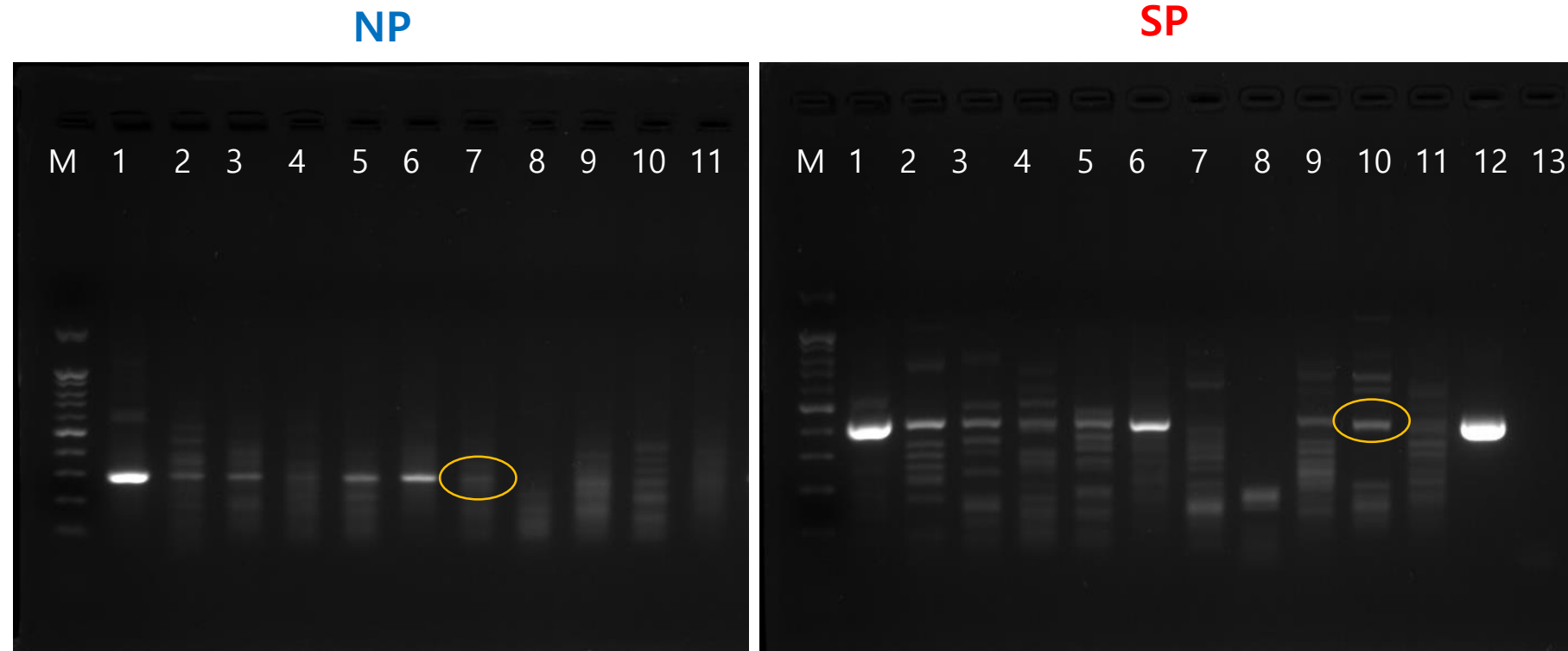
SP



SP#5, 8 sequencing:
No significant
similarity found.

Patient 2: NP

SOD	Band #	SGR-NP	SGR-SP
17	1	P	P
18	2	P	P
19	3	P	N
20	4	N	N
21	5	N	N
23	6	P	P
24	7	N	N
26	8	N	N
28	9	N	N
30	10	N	N
31	11	N	N
	12		PC
	13		NC

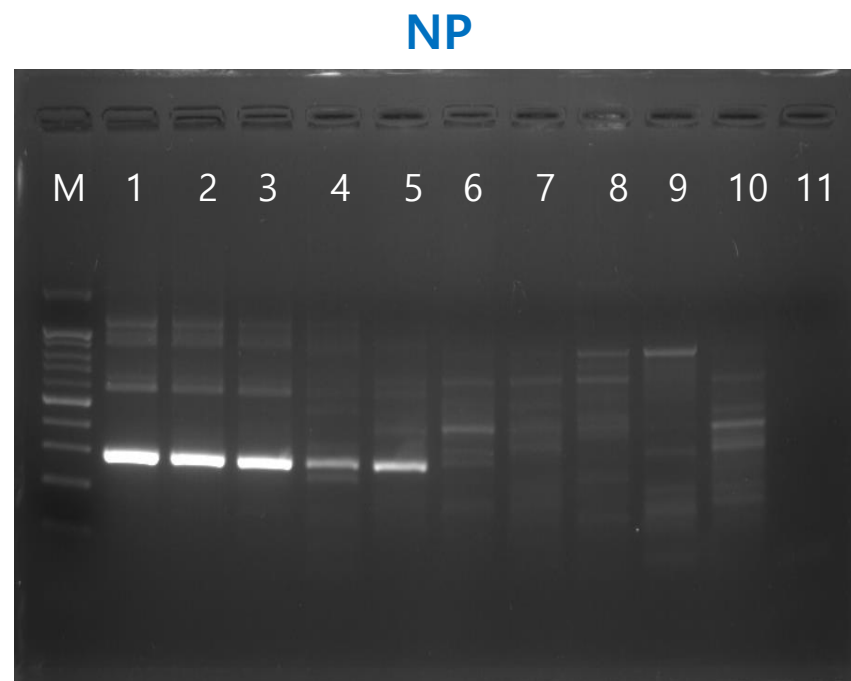


NP #7: No primer bound

SP #10 : No significant similarity found.

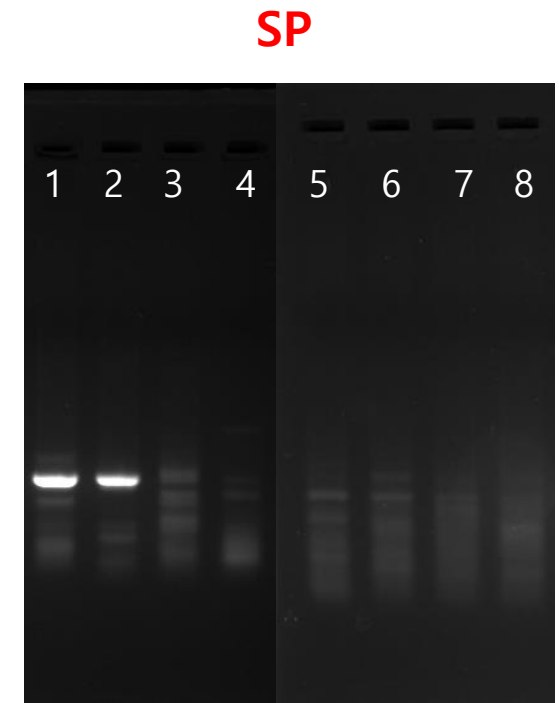
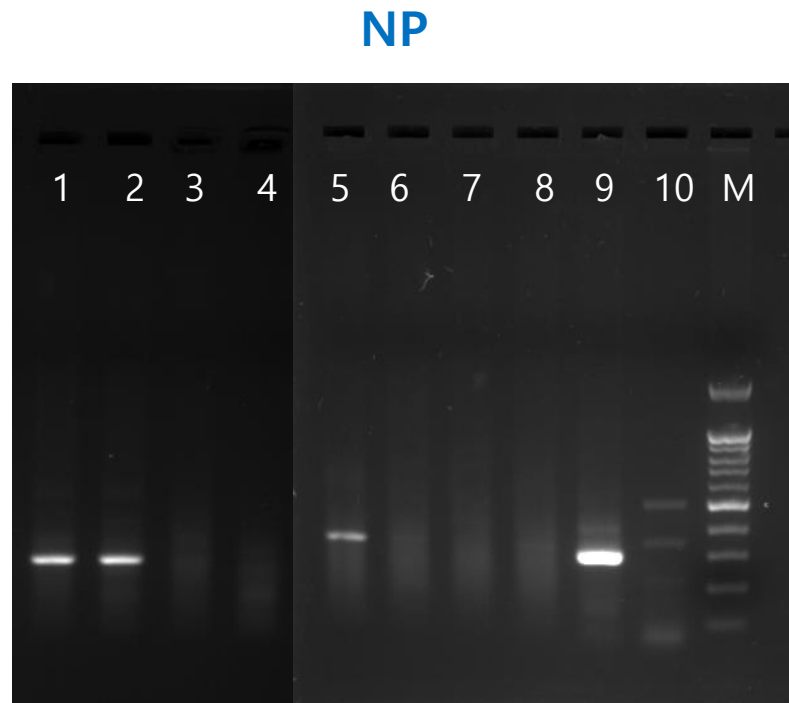
Patient 2: sputum

SOD	Band #	SGR-NP	SGR-SP
17	1	P	P
18	2	P	P
19	3	P	P
20	4	P	P
21	5	P	P
24	6	N	N
26	7	N	N
28	8	N	N
30	9	N	N
31	10	N	N
	11	NC	NC



Patient 2: Saliva

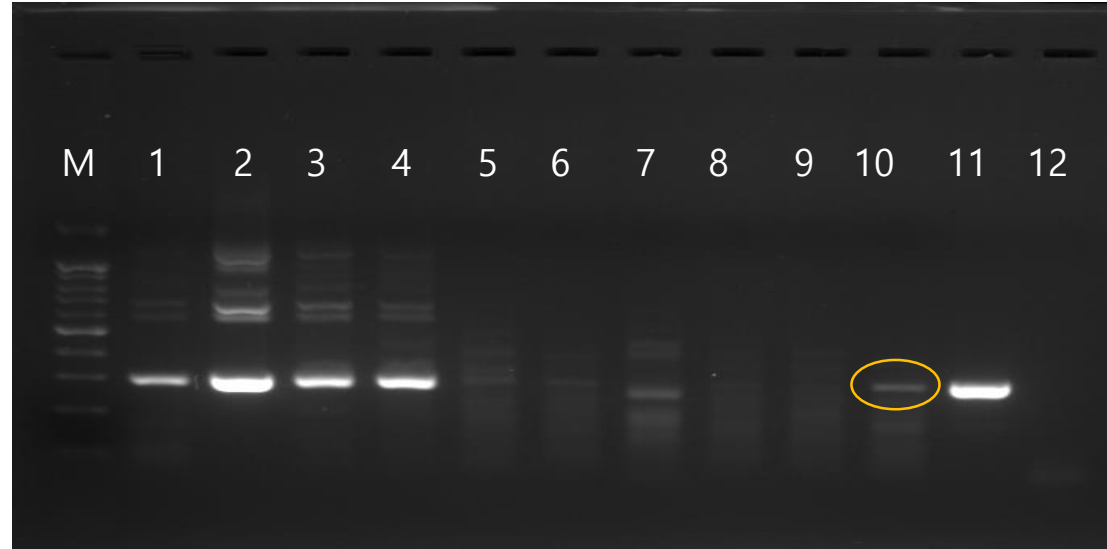
SOD	Band #	SGR-NP	SGR-SP
17	1	P	P
18	2	P	P
20	3	N	N
21	4	N	N
23	5	N	N
26	6	N	N
28	7	N	N
31	8	N	N
	9	PC	
	10	NC	



Patient 3: NP

SOD	Band #	SGR-NP	SGR-SP
3	1	P	P
4	2	P	P
7	3	P	P
9	4	P	P
10	5	N	N
13	6	N	N
15	7	N	N
17	8	N	N
22	9	N	N
27	10	N	N
	11	PC	PC
	12	NC	NC

NP



#10 sequencing:
No significant
similarity found.

SP



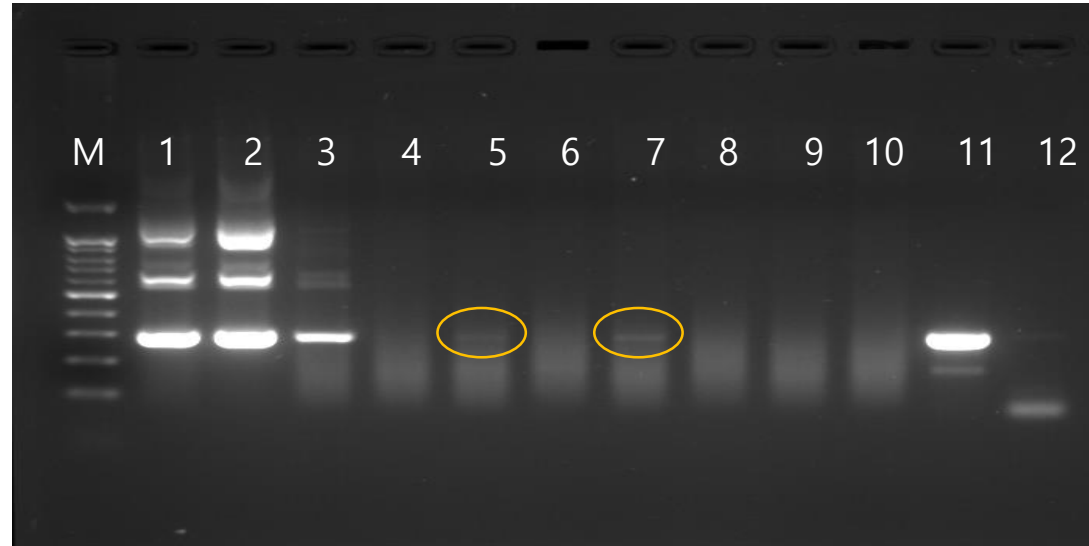
#5 sequencing:
Homo sapiens
BAC clone

#10 sequencing:
No significant
similarity found.

Patient 3: sputum

SOD	Band #	SGR-NP	SGR-SP
3	1	P	P
4	2	P	P
7	3	P	P
9	4	N	N
11	5	N	N
13	6	N	N
15	7	N	N
17	8	N	N
22	9	N	N
27	10	N	N
	11	PC	PC
	12	NC	NC

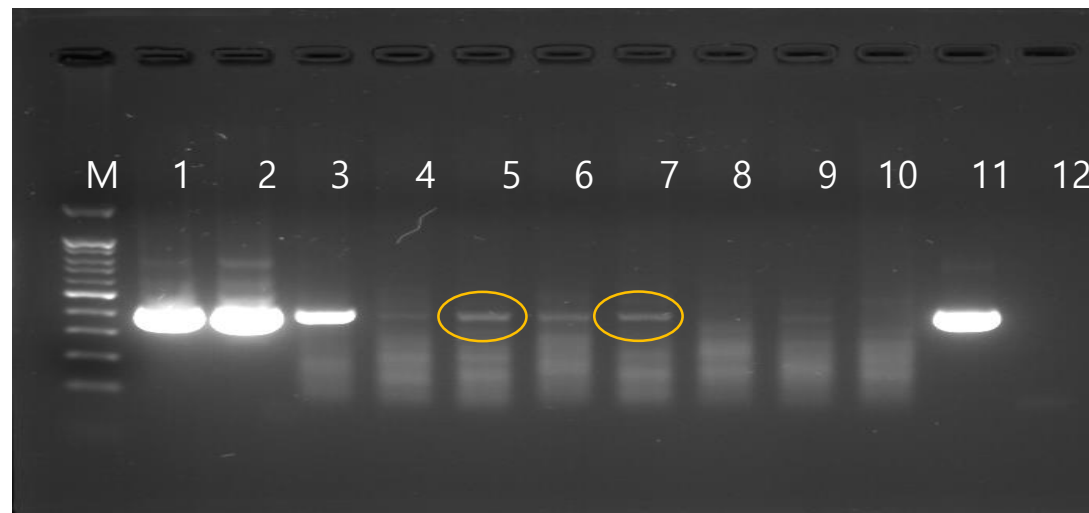
NP



#5 sequencing:
No significant
similarity found.

#7 sequencing:
No significant
similarity found.

SP



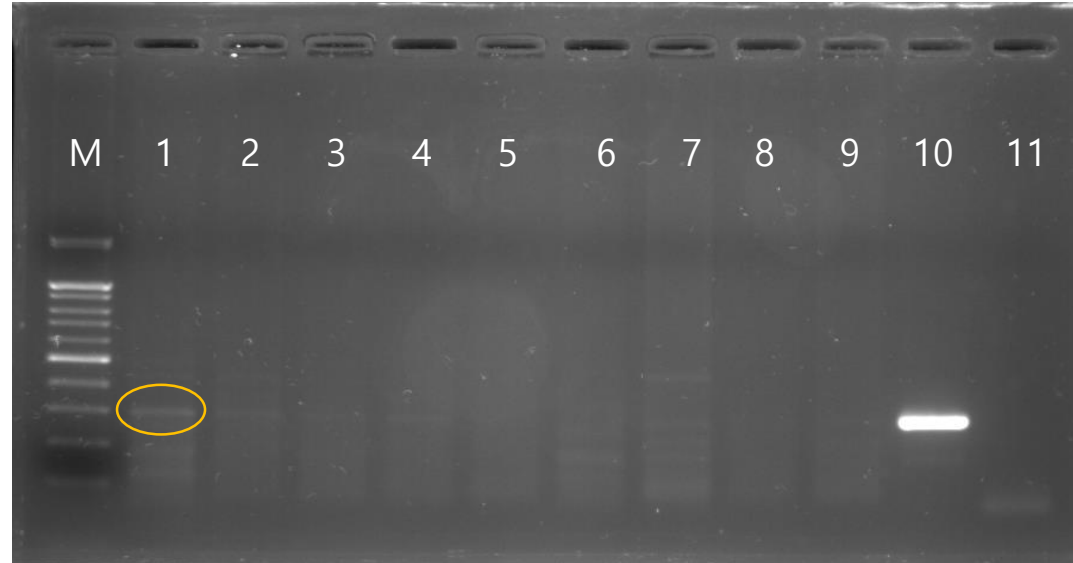
#5 sequencing:
No significant
similarity found.

#7 sequencing:
No significant
similarity found.

Patient 3: saliva

SOD	Band #	SGR-NP	SGR-SP
4	1	N	N
6	2	N	N
9	3	N	N
11	4	N	N
13	5	N	N
15	6	N	N
17	7	N	N
22	8	N	N
27	9	N	N
	10	PC	PC
	11	NC	NC

NP



#01 sequencing:
No significant
similarity found.

SP

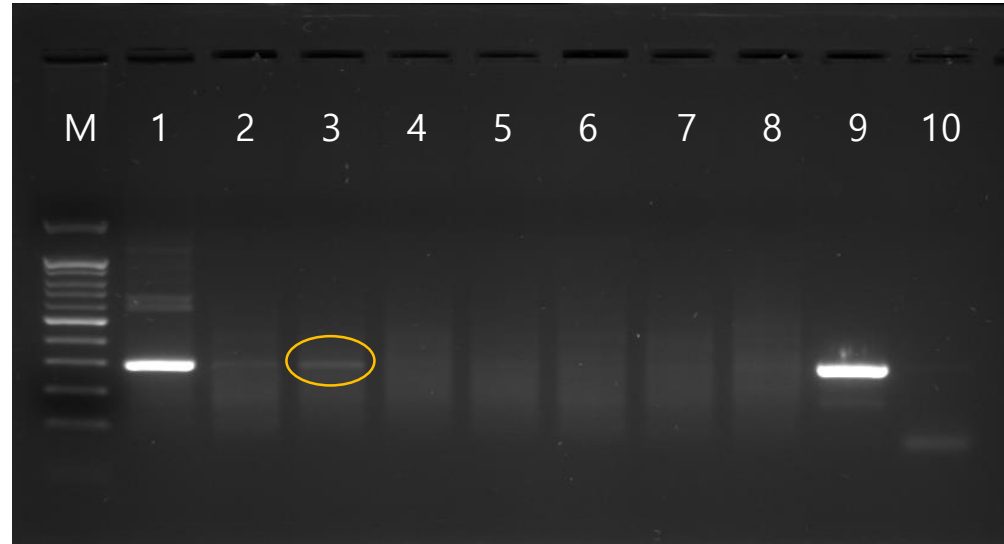


#3 sequencing:
No significant
similarity found.

Patient 4: NP

SOD	Band #	SGR-NP	SGR-SP
4	1	P	P
6	2	P	P
8	3	P	P
10	4	N	N
13	5	N	N
15	6	N	N
24	7	N	N
28	8	N	N
	9	PC	PC
	10	NC	NC

NP



#03 sequencing:
SARS-CoV-2

SP

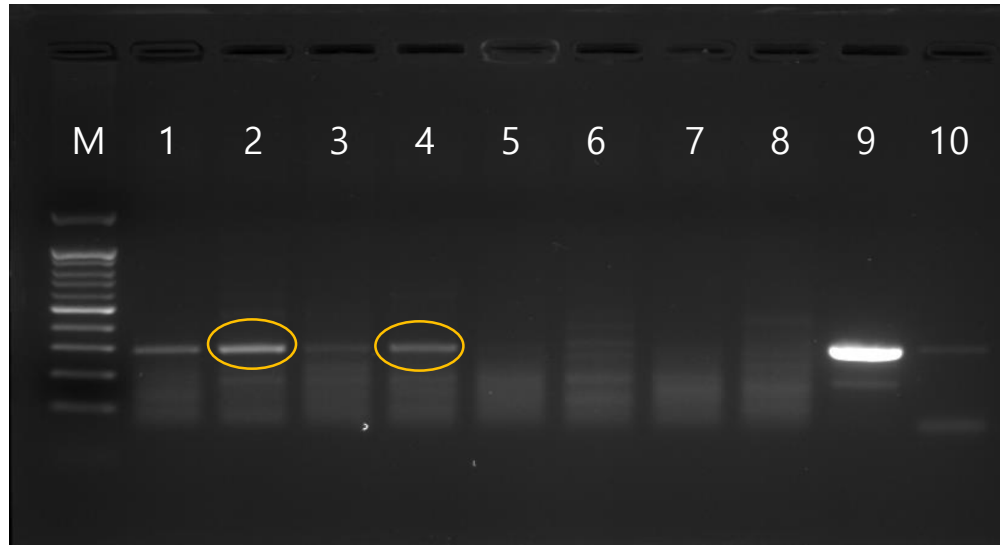


#03 sequencing:
SARS-CoV-2

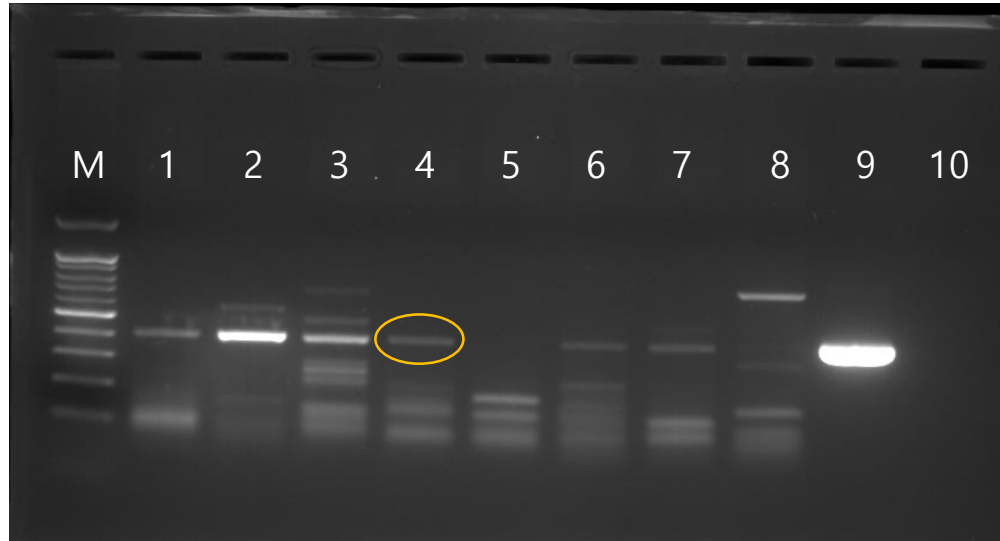
Patient 4: Sputum

SOD	Band #	SGR-NP	SGR-SP
4	1	P	P
6	2	P	P
8	3	N	N
10	4	N	N
16	5	N	N
18	6	N	N
21	7	N	N
24	8	N	N
	9	PC	PC
	10	NC	NC

NP



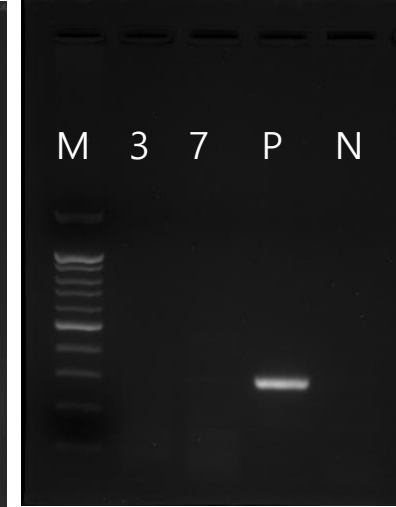
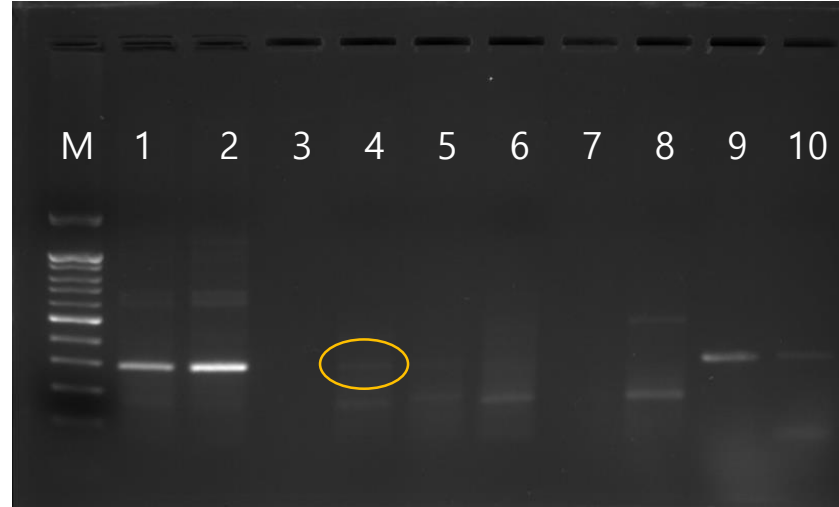
SP



Patient 4: Saliva

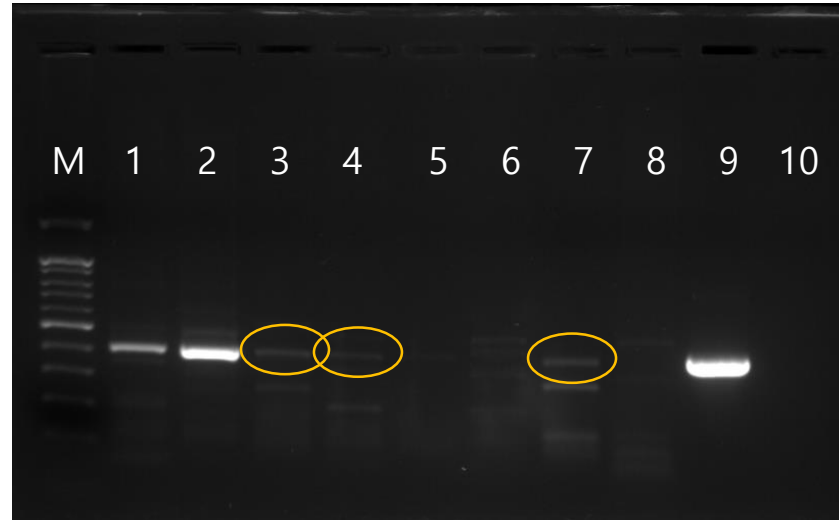
SOD	Band #	SGR-NP	SGR-SP
4	1	P	P
6	2	P	P
9	3	N	N
11	4	N	N
15	5	N	N
18	6	N	N
21	7	N	N
28	8	N	N
	9	PC	PC
	10	NC	NC

NP



#04 sequencing:
No significant similarity found.

SP

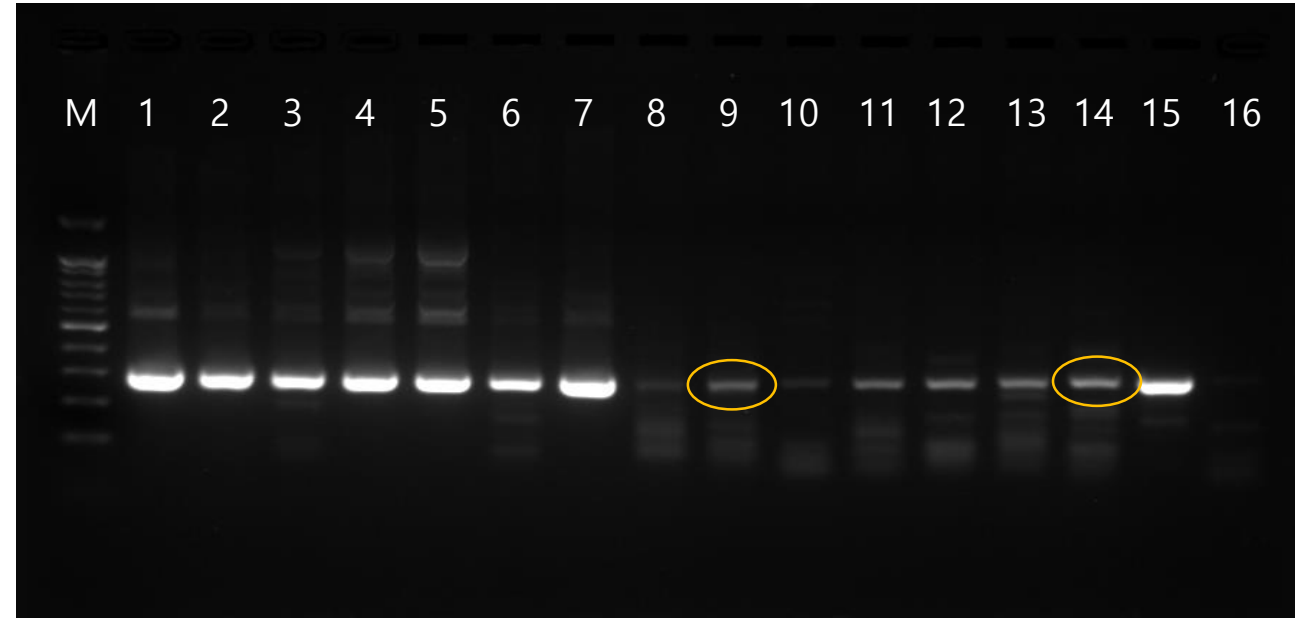


#03, 04, 07 sequencing:
No significant similarity found.

Patient 5: NP

SOD	Band #	SGR-NP	SGR-SP
1	1	P	P
5	2	P	P
9	3	P	P
11	4	P	P
13	5	P	P
16	6	P	P
19	7	P	P
33	8	P	P
35	9	P	P
38	10	P	N
40	11	N	N
42	12	N	N
44	13	N	N
47	14	N	N
	15	PC	PC
	16	NC	NC

NP



SP

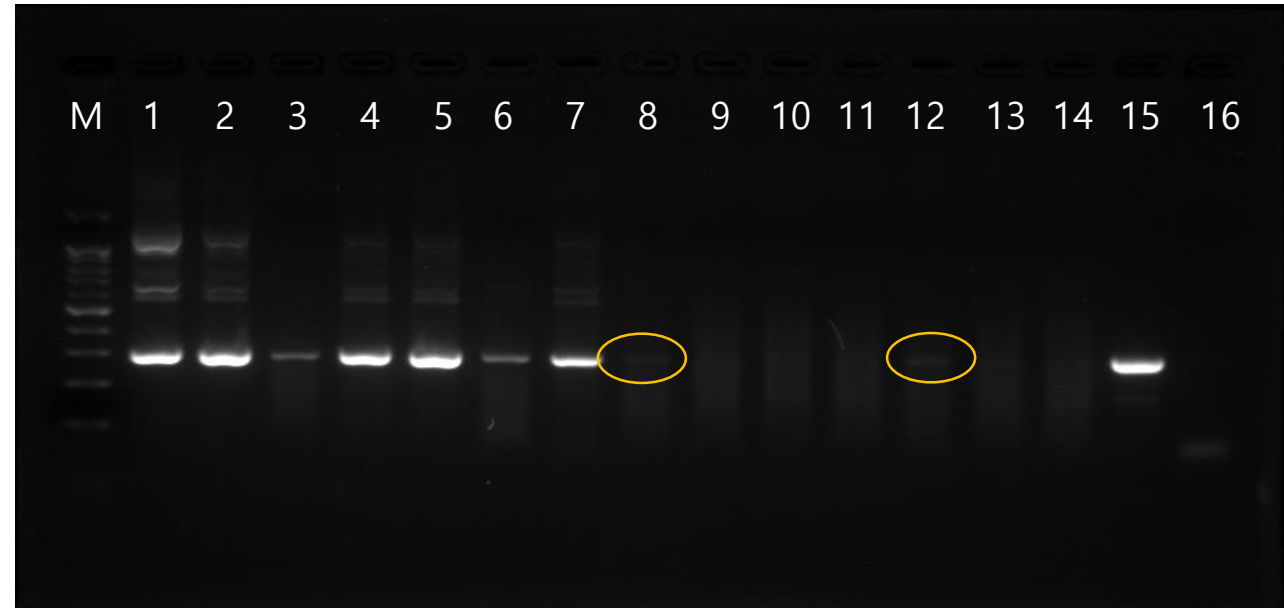


#11-14 sequencing: No significant similarity found.

Patient 5: sputum

SOD	Band #	SGR-NP	SGR-SP
1	1	P	P
5	2	P	P
9	3	P	P
11	4	P	P
13	5	P	P
16	6	P	P
19	7	P	P
33	8	N	N
35	9	N	N
38	10	N	N
40	11	N	N
42	12	N	N
44	13	N	N
47	14	N	N
	15	PC	PC
	16	NC	NC

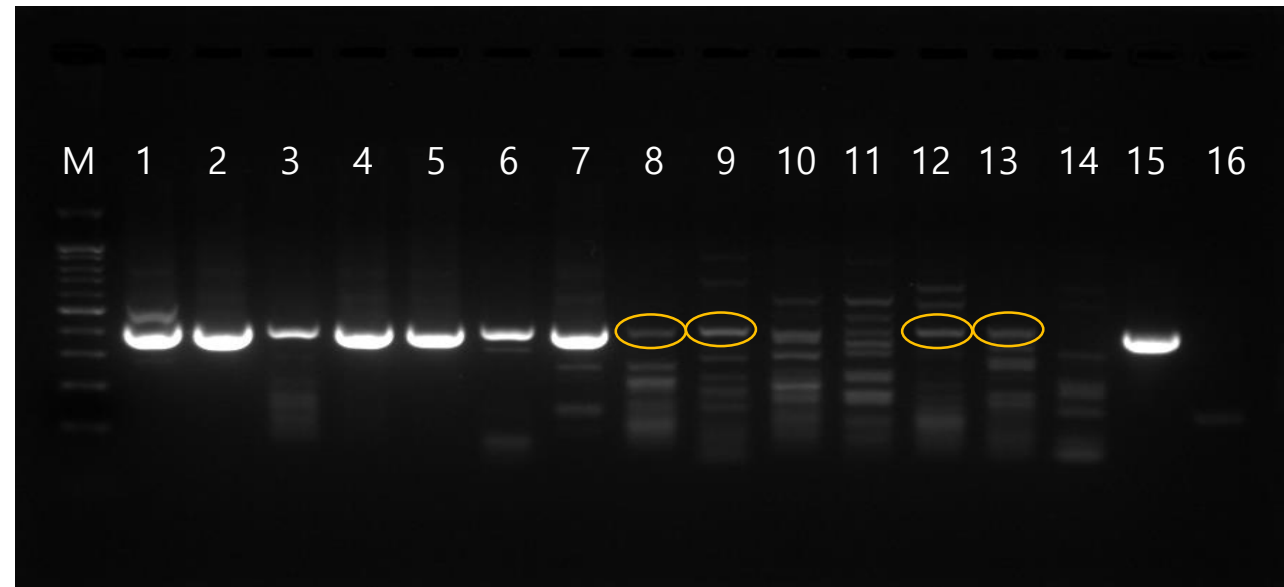
NP



#08 sequencing:
No signal

#12 sequencing:
No signal

SP



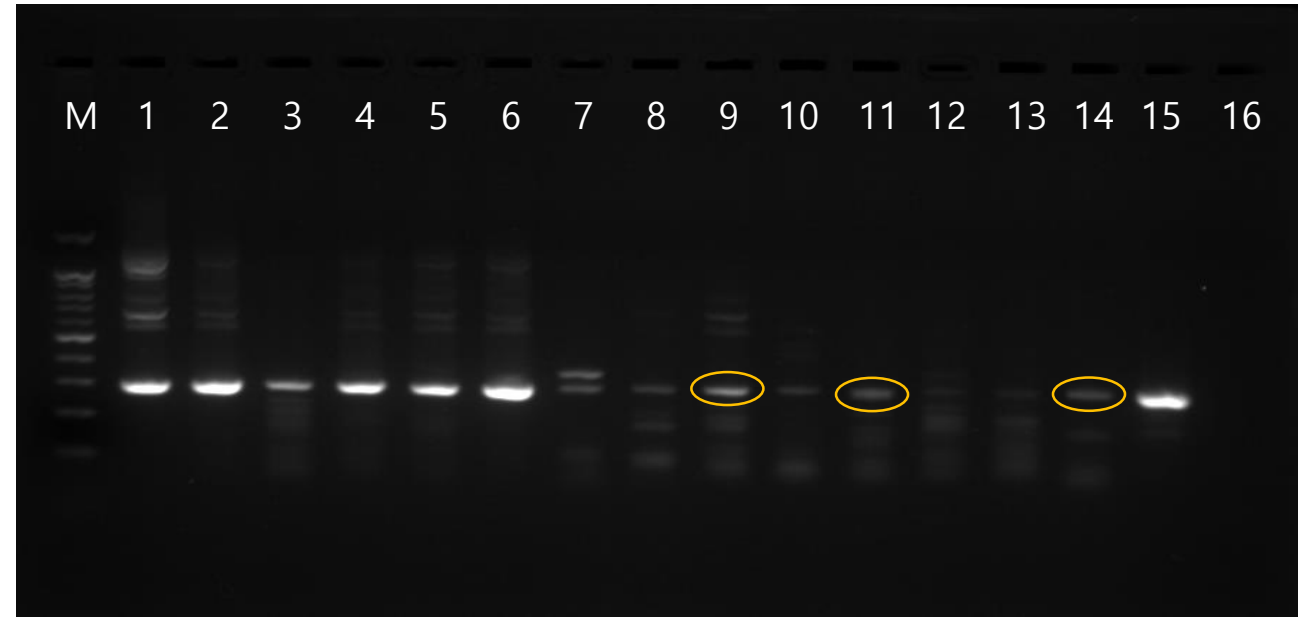
#08, 09
sequencing: No
significant
similarity found.

#12, 13
sequencing:
No significant
similarity found.

Patient 5: Saliva

SOD	Band #	SGR-NP	SGR-SP
1	1	P	P
5	2	P	P
9	3	P	P
11	4	P	P
13	5	P	P
16	6	P	P
19	7	N	N
33	8	N	N
35	9	P	P
38	10	N	N
40	11	N	N
42	12	N	N
44	13	N	N
47	14	N	N
	15	PC	PC
	16	NC	NC

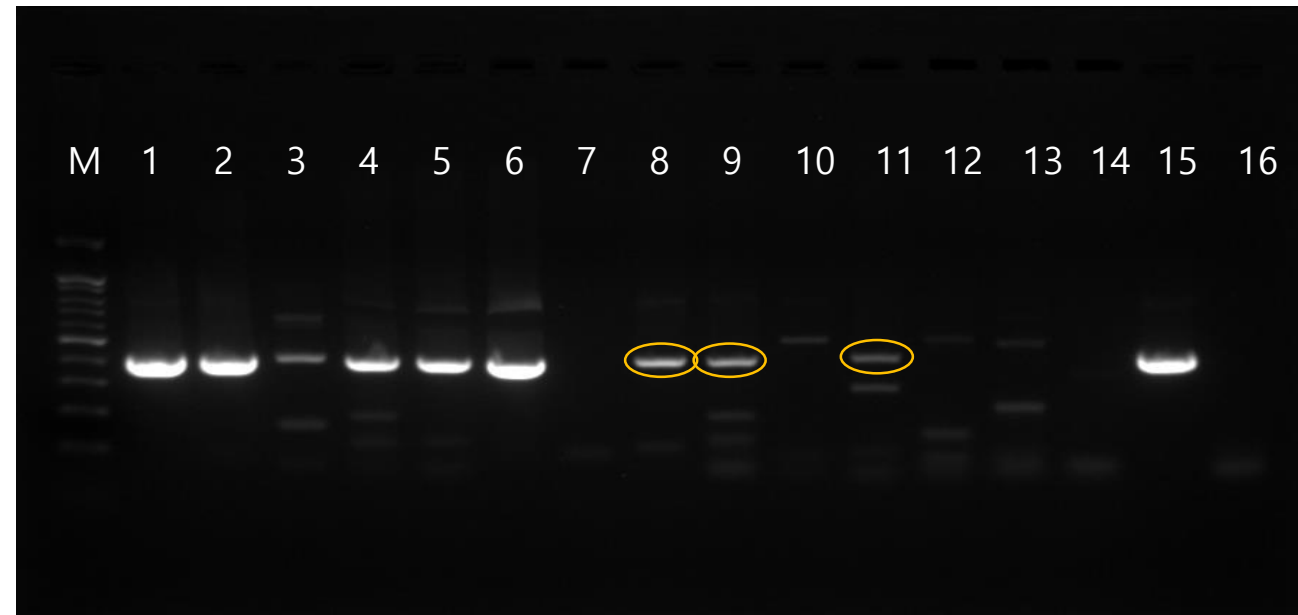
NP



#09 sequencing:
SARS-CoV-2

#11, 14
sequencing: No
significant
similarity found.

SP



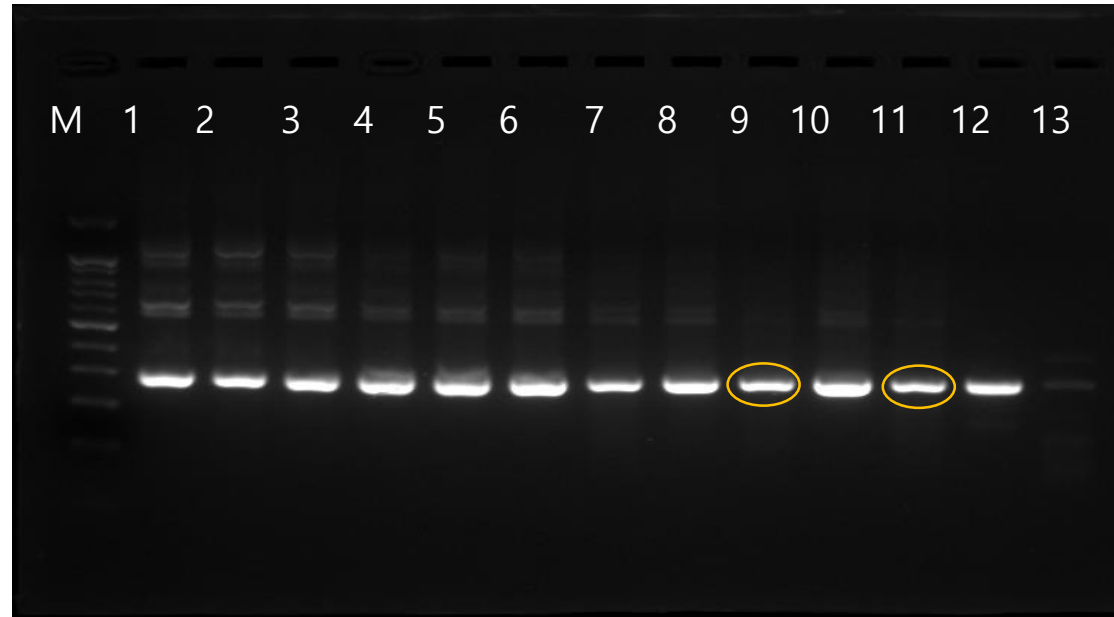
#09 sequencing:
SARS-CoV-2

#11 sequencing:
No significant
similarity found.

Patient 6: Sputum, NP

Specimen	SOD	Band #	SGR-NP	SGR-SP
Sputum	0	1	P	P
Sputum	1	2	P	P
Sputum	5	3	P	P
Sputum	10	4	P	P
Sputum	14	5	P	P
Sputum	35	6	P	P
Sputum	38	7	P	P
Sputum	41	8	P	P
Sputum	44	9	P	P
NP	35	10	P	P
NP	45	11	P	P
	42	12	PC	PC
	44	13	NC	NC

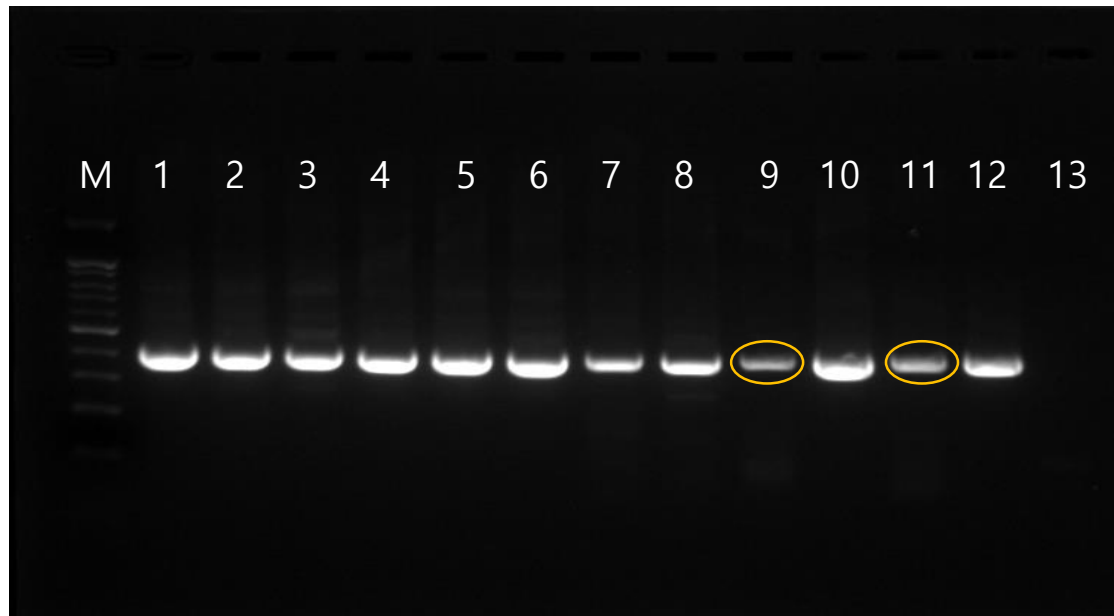
NP



#09 sequencing:
SARS-CoV-2

#11 sequencing:
SARS-CoV-2

SP



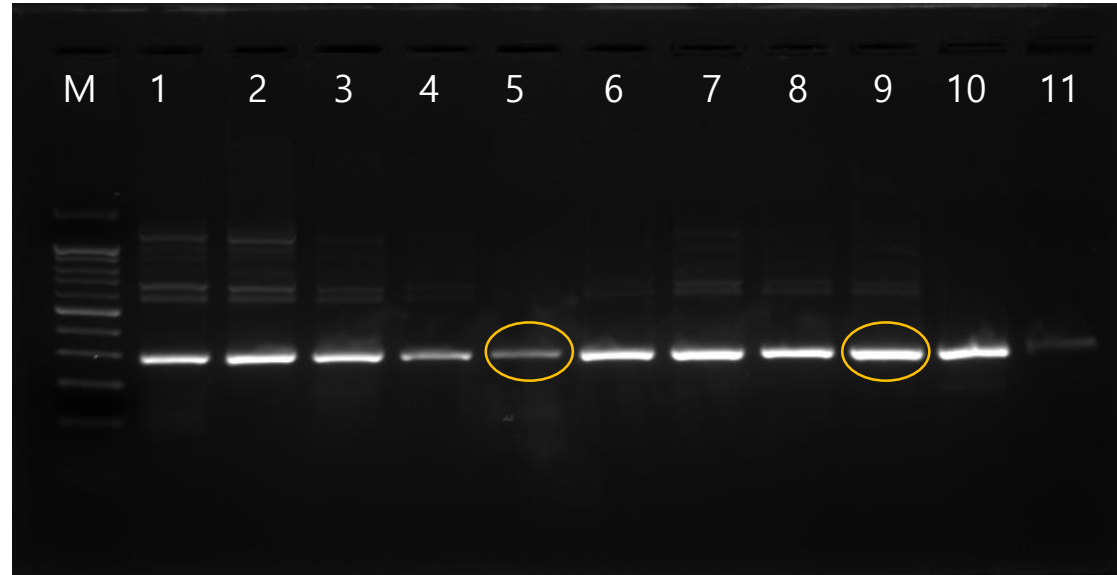
#09 sequencing:
SARS-CoV-2

#11 sequencing:
SARS-CoV-2

Patient 6: Saliva

SOD	Band#	SGR-NP	SGR-SP
0	1	P	P
1	2	P	P
5	3	P	P
10	4	P	P
14	5	P	P
35	6	P	P
38	7	P	P
41	8	P	P
44	9	P	P
	10	PC	PC
	11	NC	NC

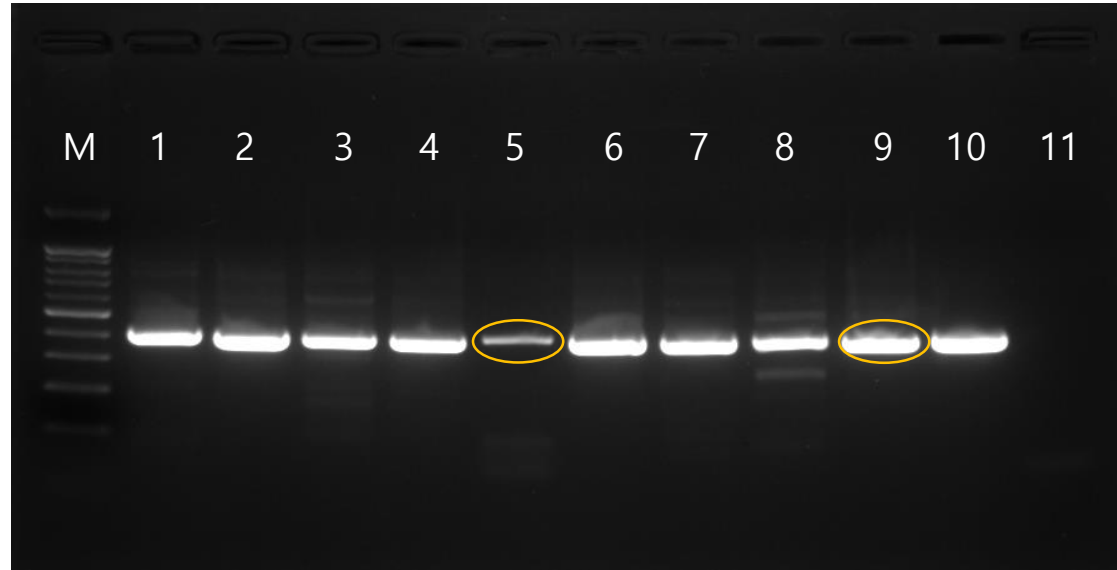
NP



#05 sequencing:
SARS-CoV-2

#09 sequencing:
SARS-CoV-2

SP



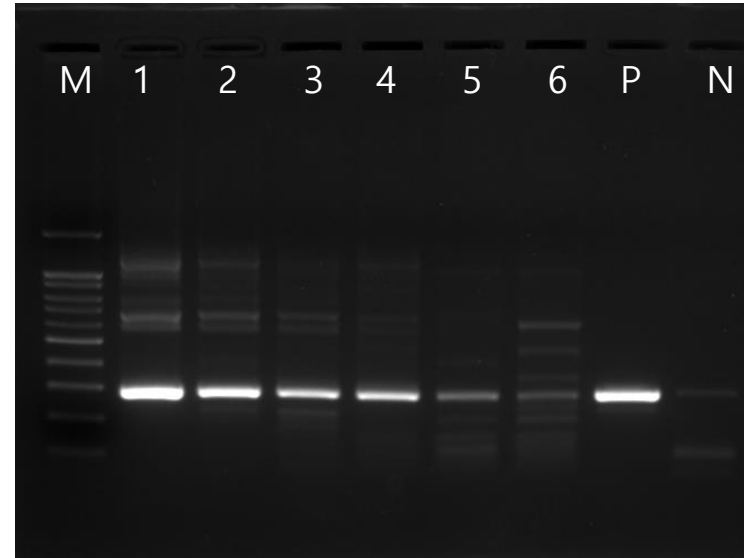
#05 sequencing:
SARS-CoV-2

#09 sequencing:
SARS-CoV-2

Patient 7: NP

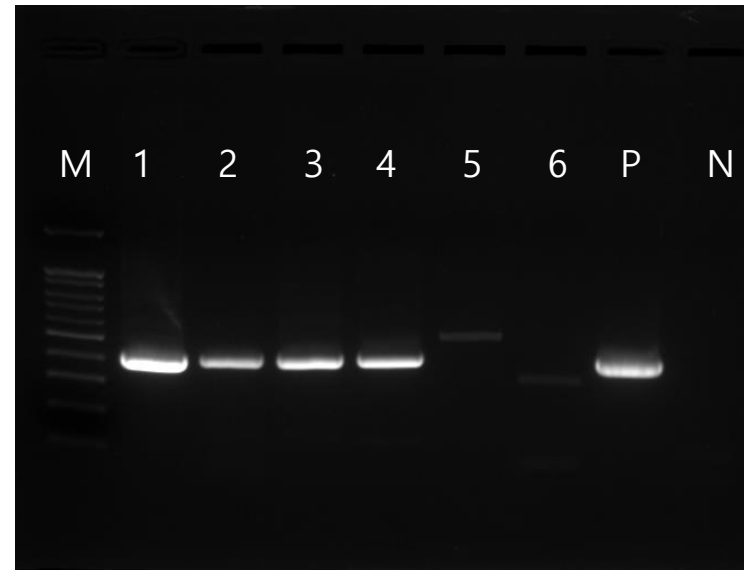
SOD	Band#	SGR-NP	SGR-SP
3	1	P	P
6	2	P	P
8	3	P	P
11	4	P	P
13	5	N	N
17	6	N	N
	10	PC	PC
	11	NC	NC

NP



#05, 06 sequencing: No significant similarity found.

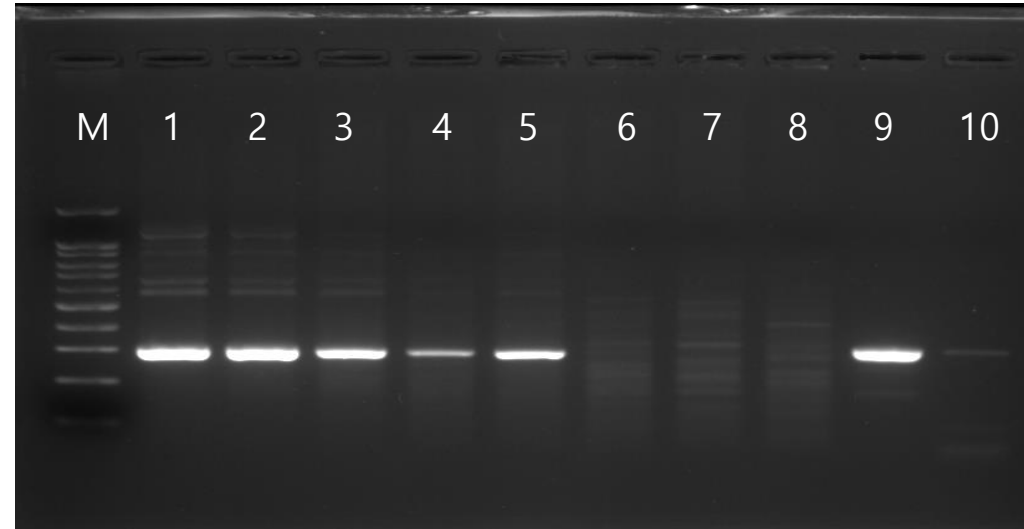
SP



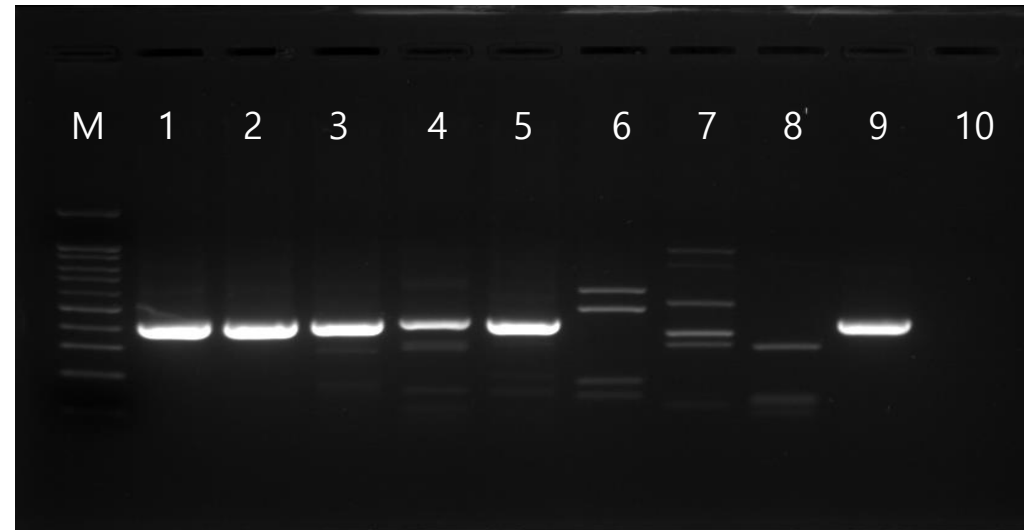
Patient 8: Sputum

SOD	Band#	SGR-NP	SGR-SP
2	1	P	P
4	2	P	P
6	3	P	P
8	4	P	P
10	5	P	P
12	6	N	N
14	7	N	N
16	8	N	N
	9	PC	PC
	10	NC	NC

NP



SP



Patient 8: Saliva

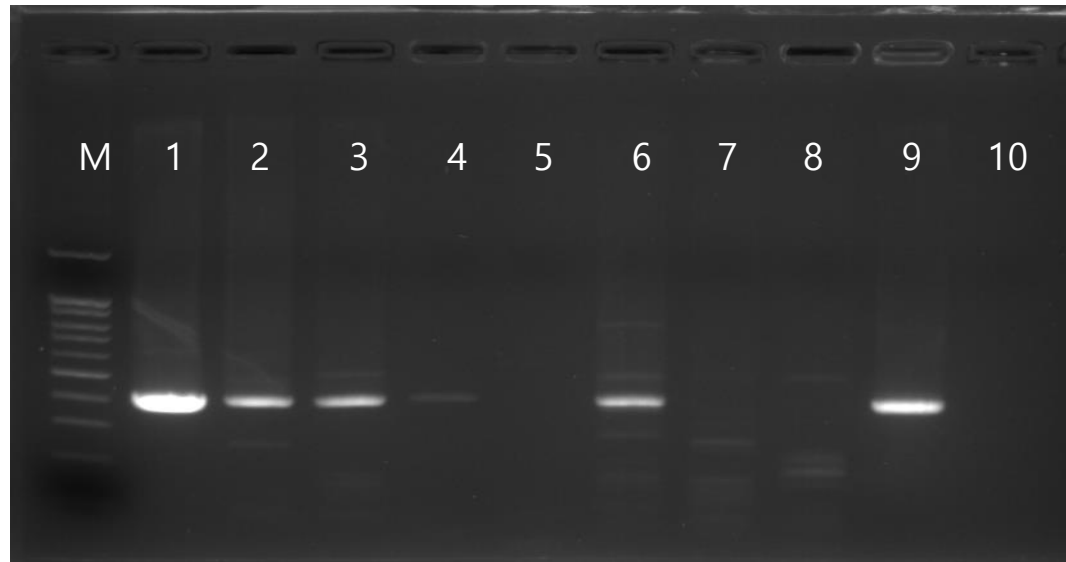
SOD	Band#	SGR-NP	SGR-SP
2	1	P	P
4	2	P	P
6	3	P	P
8	4	N	N
10	5	N	N
12	6	N	N
14	7	N	N
16	8	N	N
	9	PC	PC
	10	NC	NC

NP



#04, 05, 06
sequencing: No
significant similarity
found.

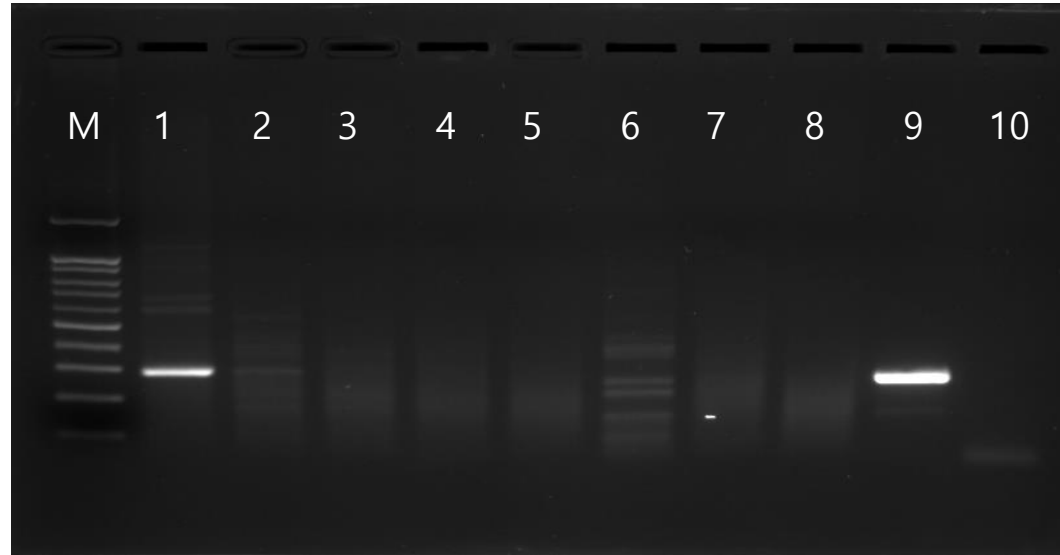
SP



Patient 9: NP

SOD	Band#	SGR-NP	SGR-SP
2	1	P	P
4	2	N	N
6	3	N	N
7	4	N	N
9	5	N	N
13	6	N	N
15	7	N	N
22	8	N	N
	9	PC	PC
	10	NC	NC

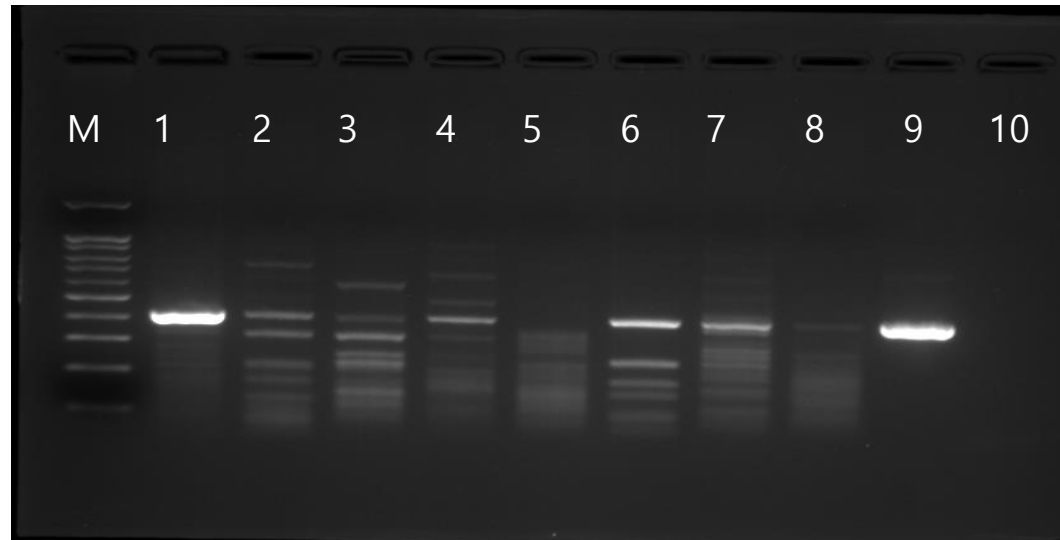
NP



#01, 02 sequencing:
SARS-CoV-2 99%

#06 sequencing:
Human DNA

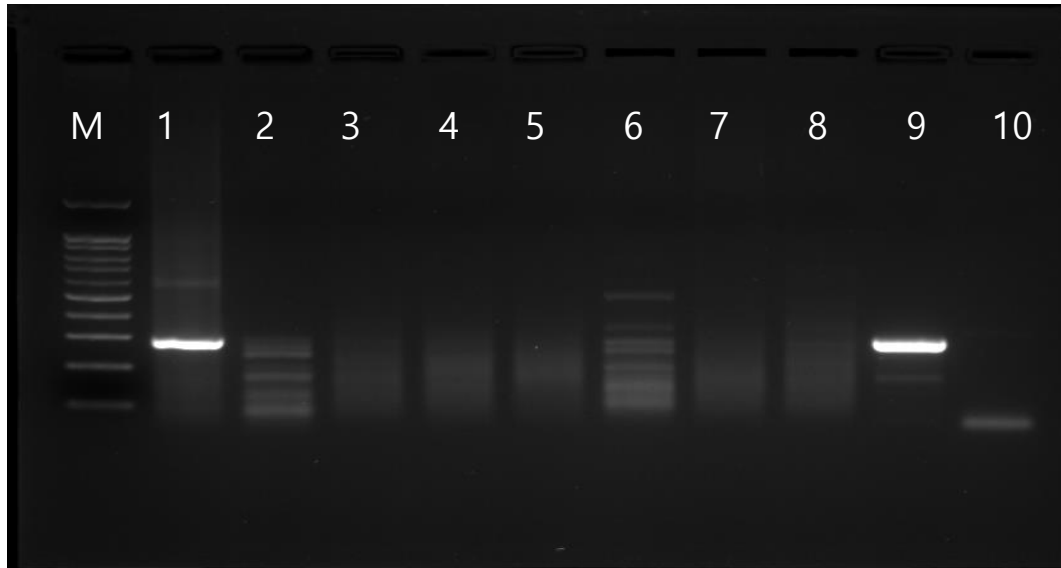
SP



Patient 9: sputum

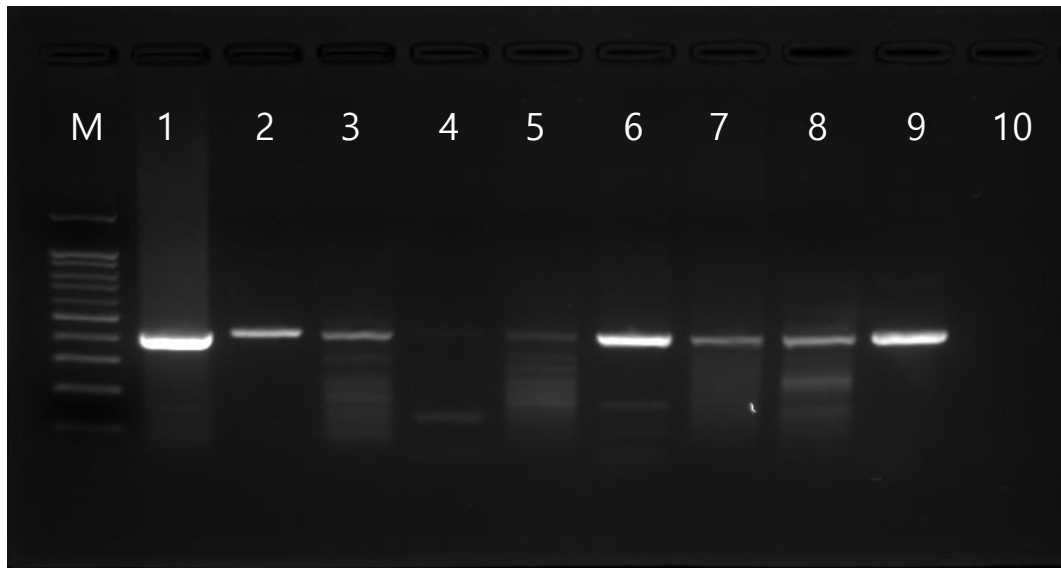
SOD	Band#	SGR-NP	SGR-SP
2	1	P	P
4	2	N	N
6	3	N	N
7	4	N	N
9	5	N	N
13	6	N	N
15	7	N	N
22	8	N	N
	9	PC	PC
	10	NC	NC

NP



#01 sequencing:
SARS-CoV-2 100%

SP

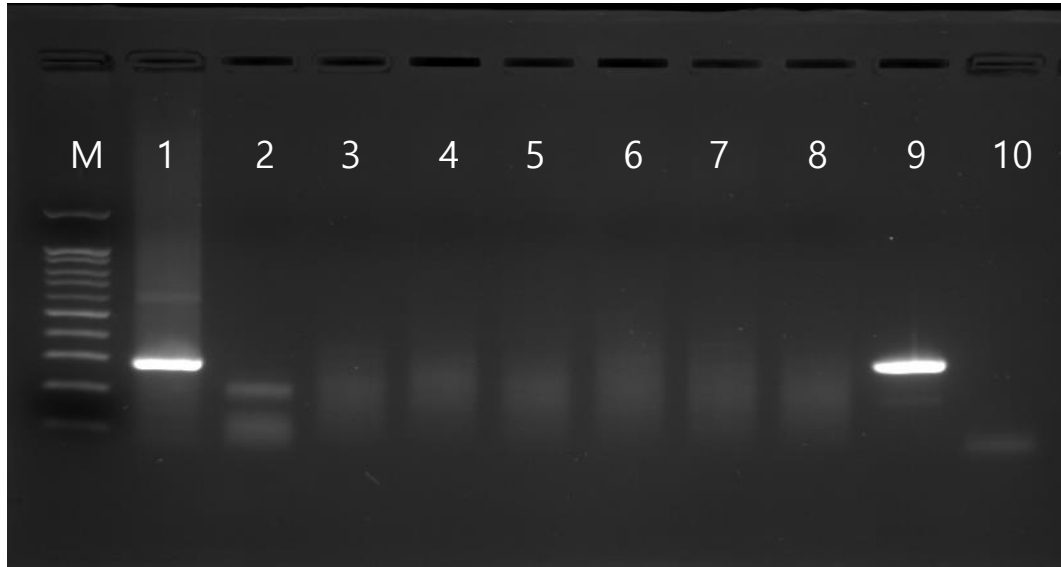


#02-08 sequencing:
no significant
similarity found.

Patient 9: saliva

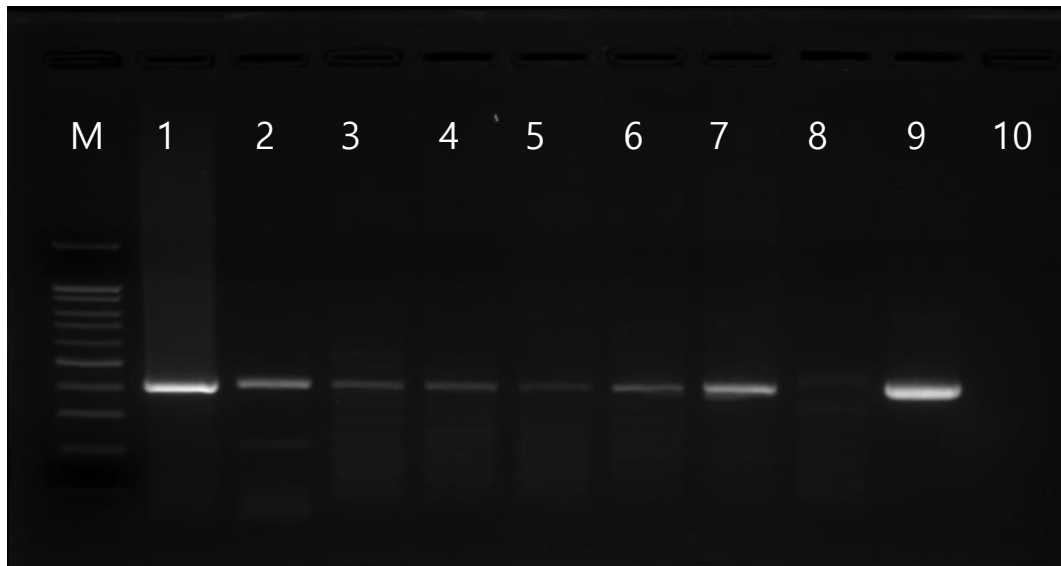
SOD	Band#	SGR-NP	SGR-SP
2	1	P	P
4	2	N	N
6	3	N	N
7	4	N	N
9	5	N	N
13	6	N	N
15	7	N	N
22	8	N	N
	9	PC	PC
	10	NC	NC

NP



#01 sequencing:
SARS-CoV-2 100%

SP



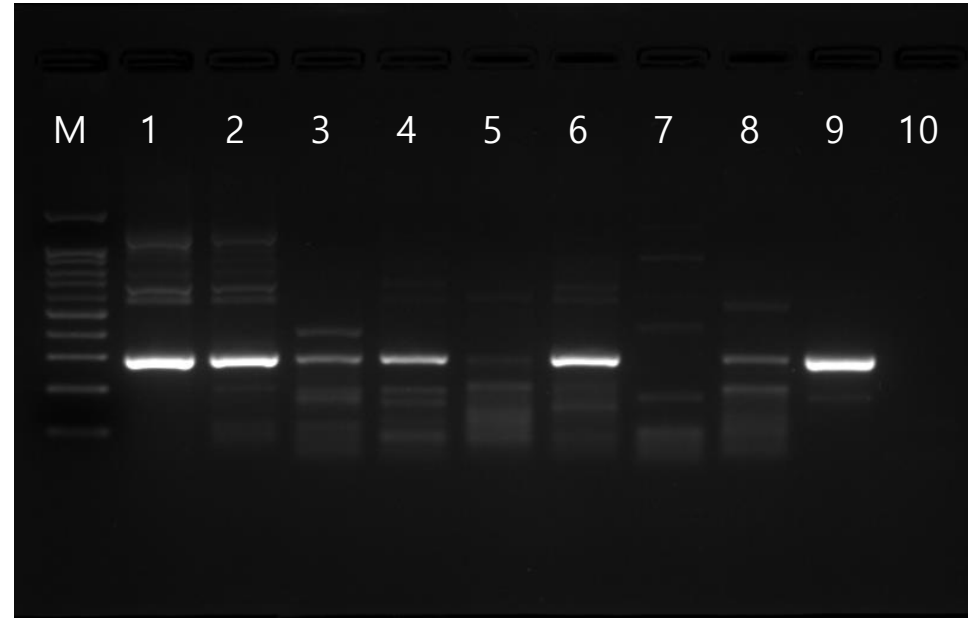
#01 sequencing:
SARS-CoV-2 100%

#02-07: no
significant similarity
found.

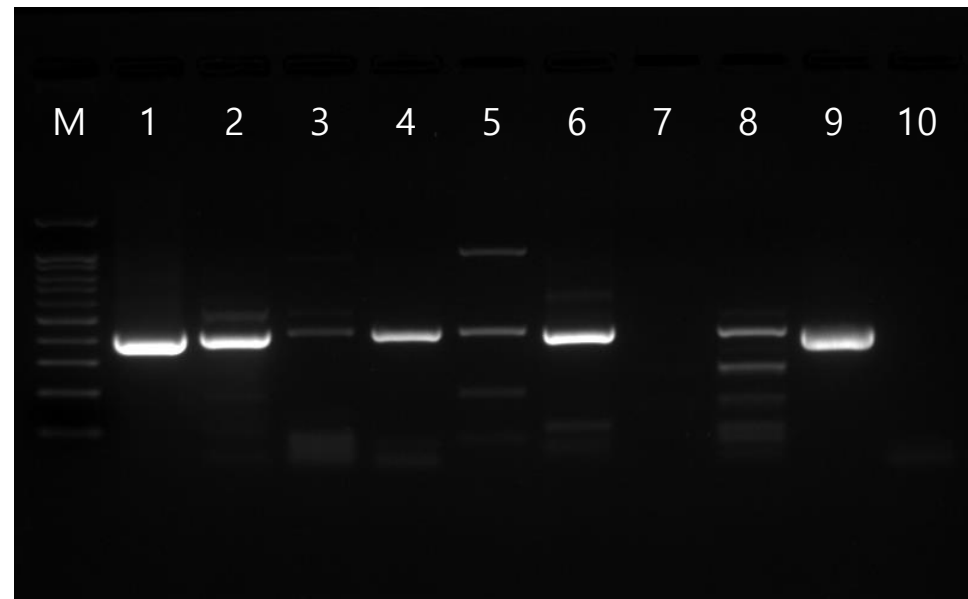
Patient 10: NP

SOD	Band#	SGR-NP	SGR-SP
9	1	P	P
12	2	P	P
14	3	P	P
17	4	P	P
19	5	N	N
21	6	N	N
23	7	N	N
28	8	N	N
	9	PC	PC
	10	NC	NC

NP



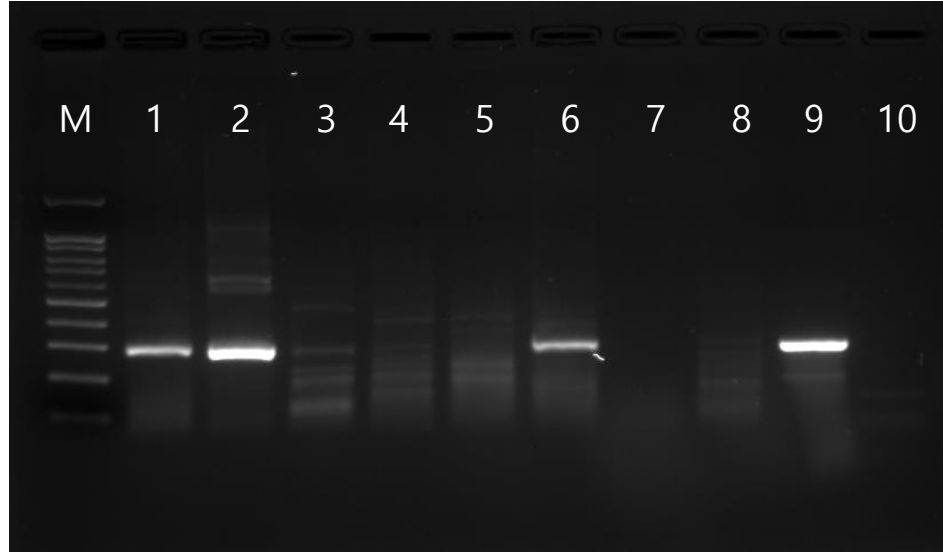
SP



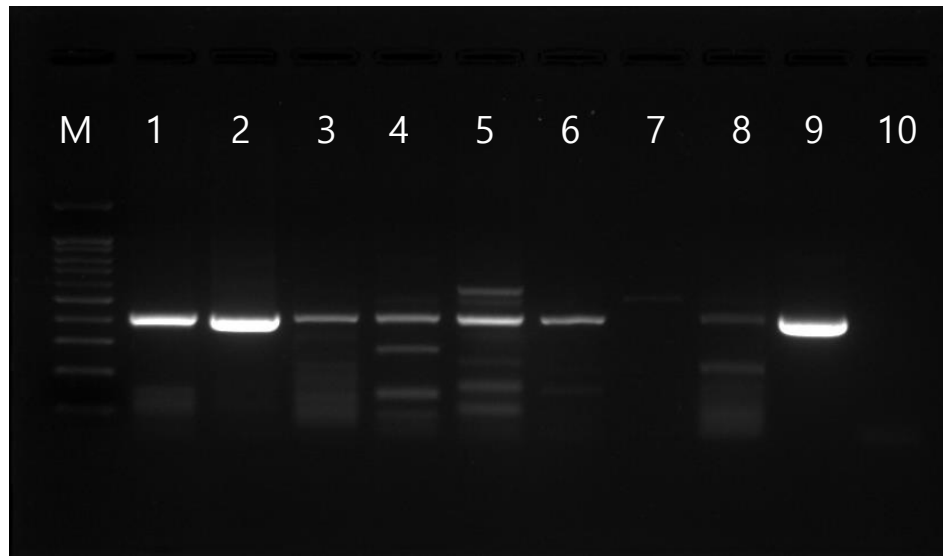
Patient 10: Sputum

SOD	Band#	SGR-NP	SGR-SP
9	1	P	P
12	2	P	P
14	3	N	N
17	4	N	N
19	5	N	N
21	6	N	N
23	7	N	N
28	8	N	N
	9	PC	PC
	10	NC	NC

NP



SP

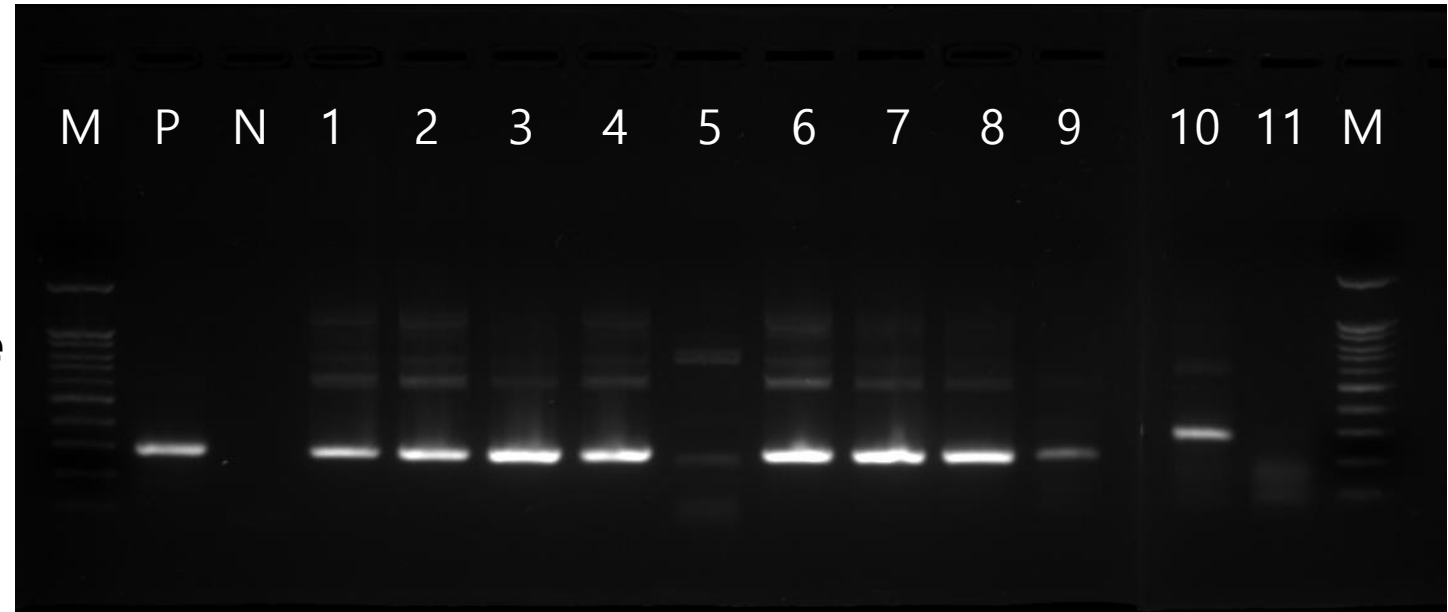


Patient 11

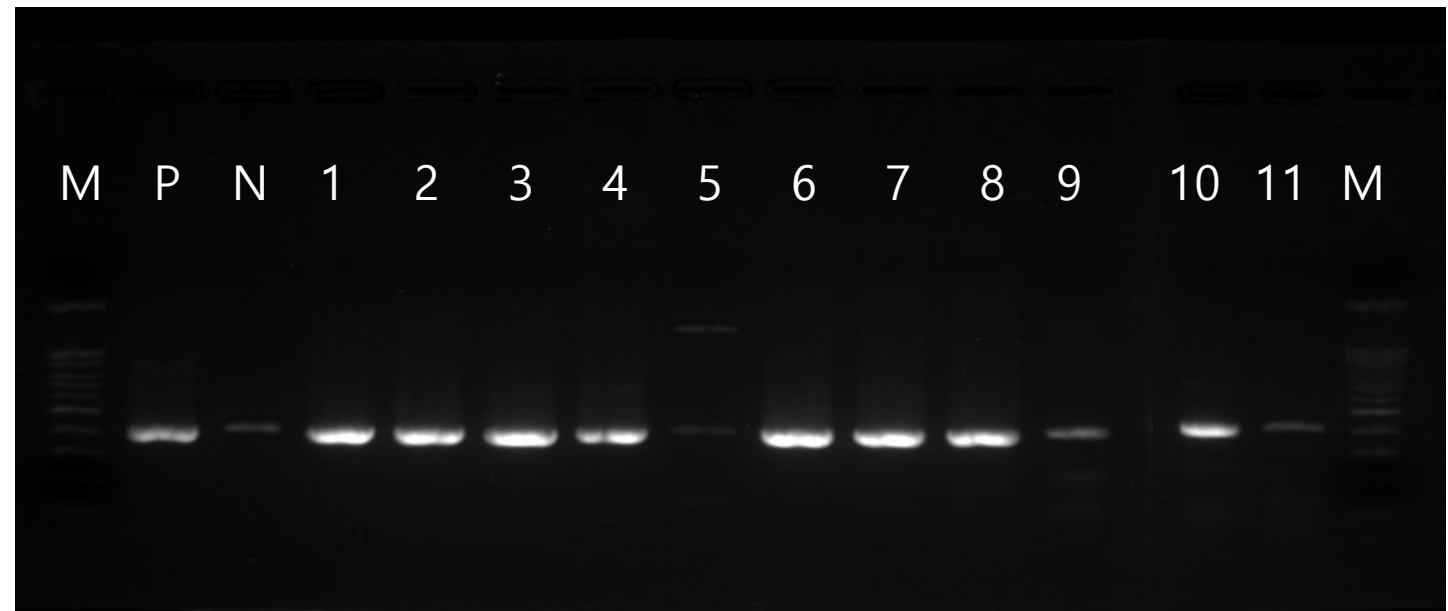
Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	3	1	P	P
NP	5	2	P	P
NP	8	3	P	P
NP	9	4	P	P
NP	14	5	N	N
Sputum	5	6	P	P
Sputum	7	7	P	P
Sputum	8	8	P	P
Sputum	9	9	P	N
Saliva	5	10	P	P
Saliva	16	11	N	N

*SP-9: not sequenced

N gene



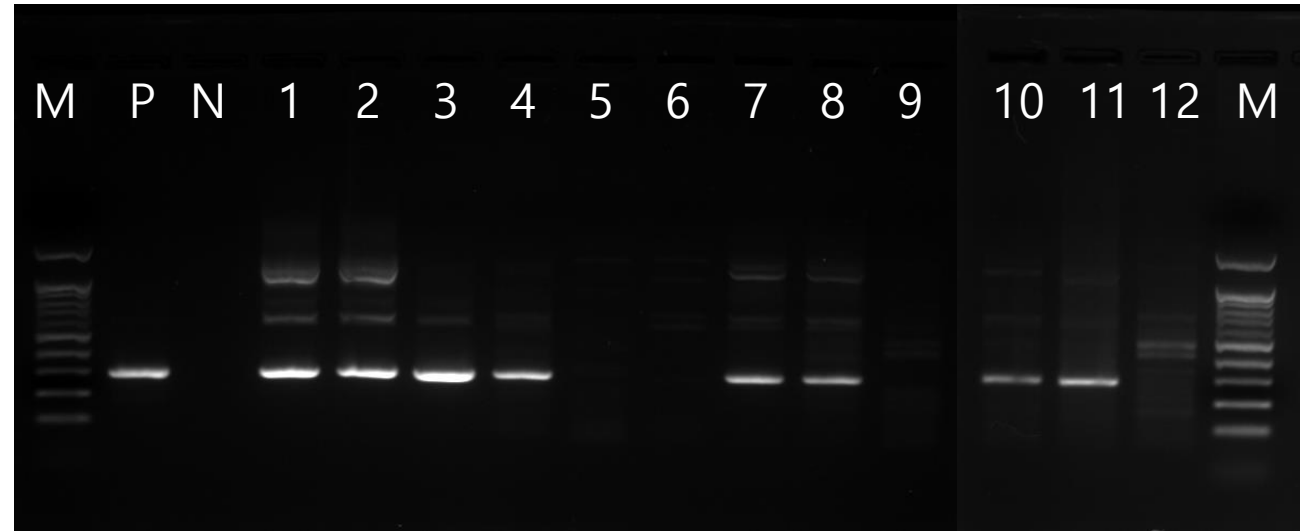
S gene



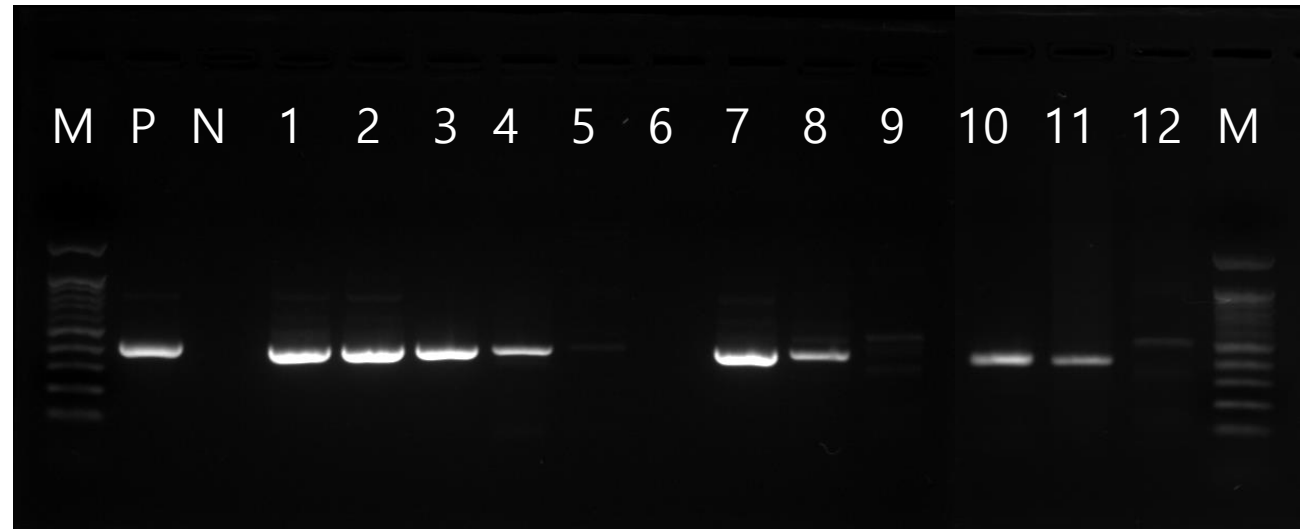
Patient 12

Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	1	1	P	P
NP	2	2	P	P
NP	4	3	P	P
NP	7	4	P	P
NP	9	5	N	N
NP	16	6	N	N
Sputum	1	7	P	P
Sputum	6	8	P	P
Sputum	11	9	N	N
Saliva	2	10	P	P
Saliva	8	11	P	P
Saliva	16	12	N	N

N gene



S gene

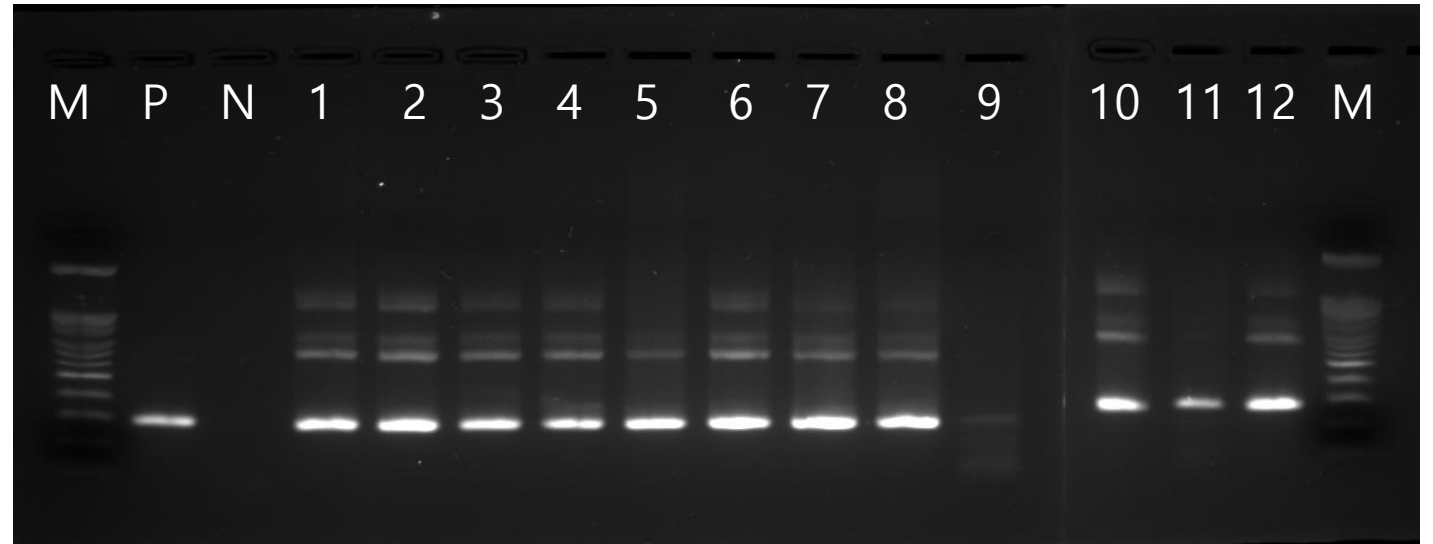


- SP-5: No significant similarity found

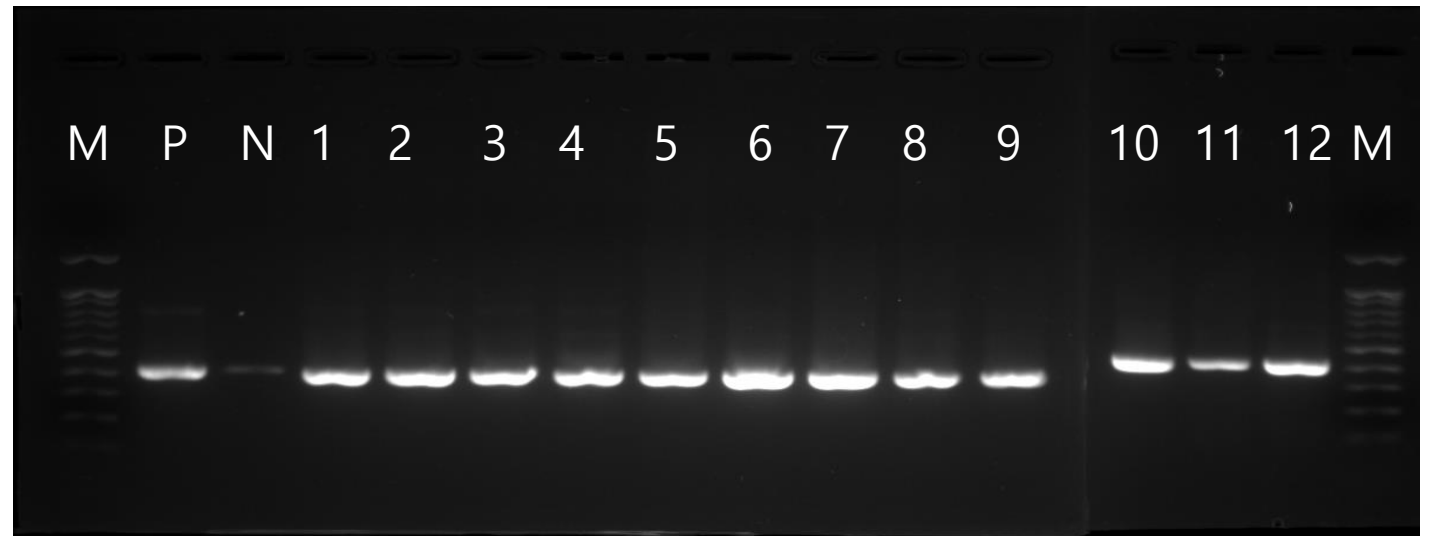
Patient 13

Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	3	1	P	P
NP	5	2	P	P
NP	8	3	P	P
NP	10	4	P	P
Sputum	3	5	P	P
Sputum	5	6	P	P
Sputum	8	7	P	P
Sputum	10	8	P	P
Saliva	3	9	N	P
Saliva	5	10	P	P
Saliva	8	11	P	P
Saliva	10	12	P	P

N gene



S gene

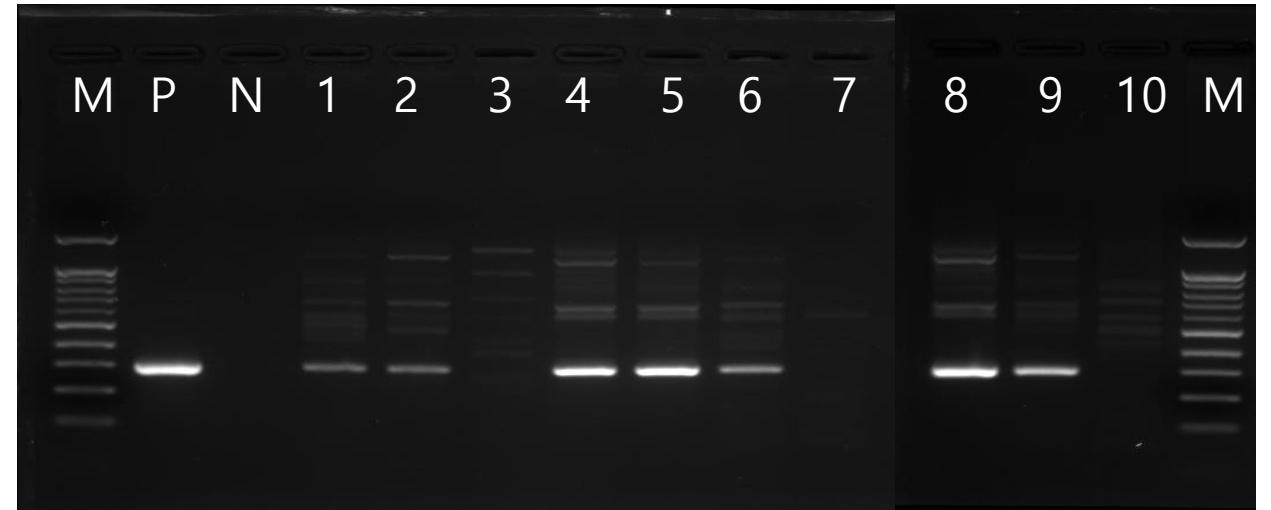


Patient 14

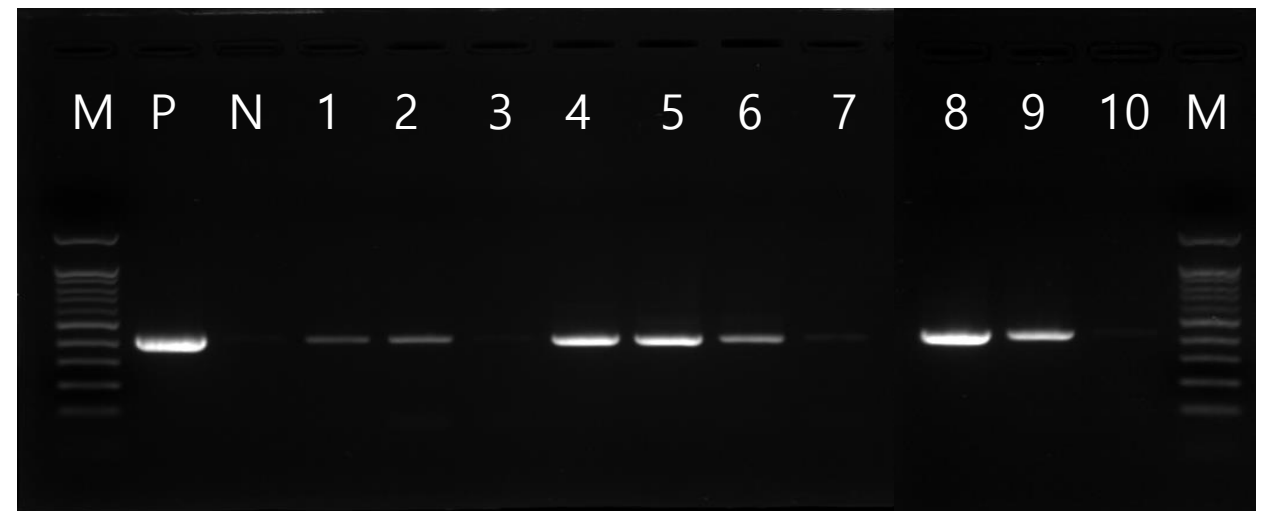
Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	5	1	P	P
NP	17	2	P	P
NP	23	3	N	N
Sputum	5	4	P	P
Sputum	13	5	P	P
Sputum	17	6	P	P
Sputum	30	7	N	N
Saliva	5	8	P	P
Saliva	13	9	P	P
Saliva	23	10	N	N

*SP-7: 90% Identity → negative
not sequenced 5' leader

N gene



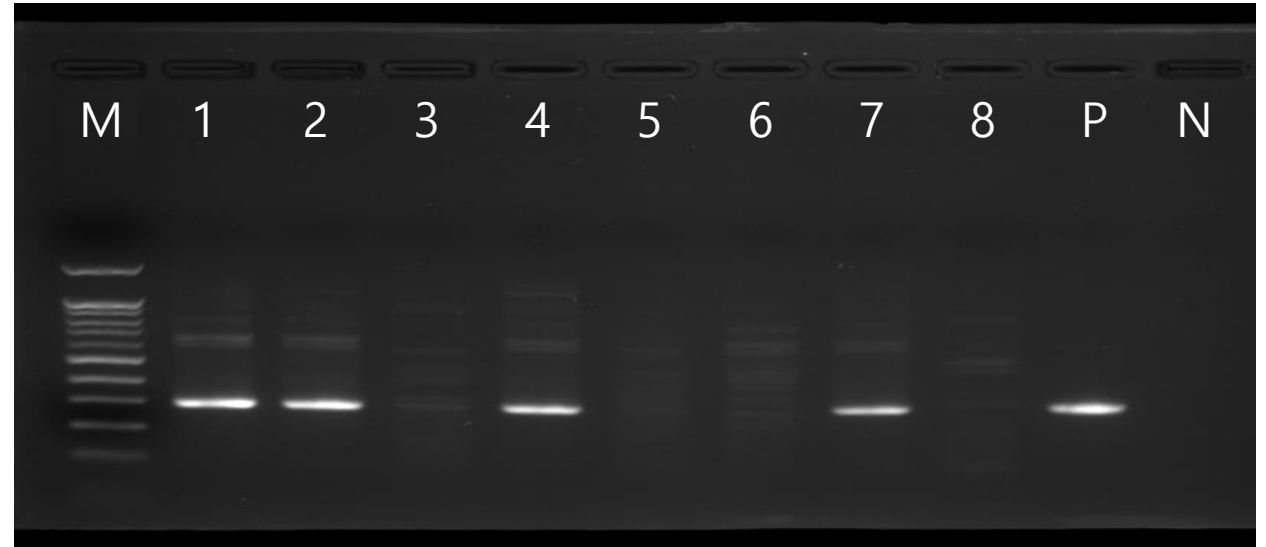
S gene



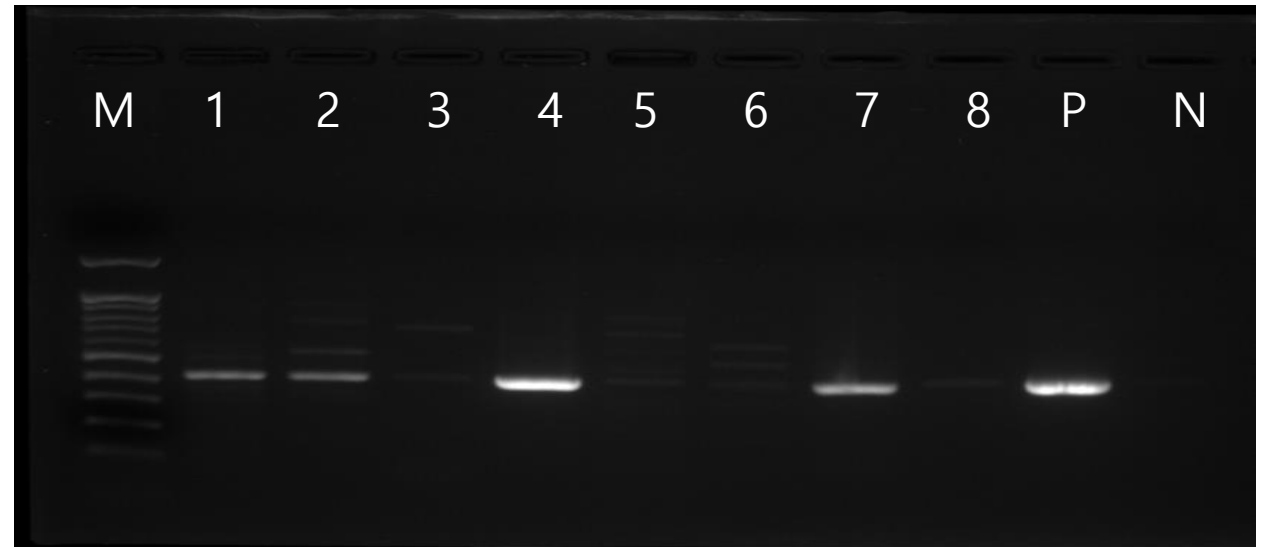
Patient 15

Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	6	1	P	P
NP	9	2	P	P
NP	13	3	N	N
Sputum	9	4	P	P
Sputum	19	5	N	N
Sputum	33	6	N	N
Saliva	6	7	P	P
Saliva	26	8	N	N

N gene



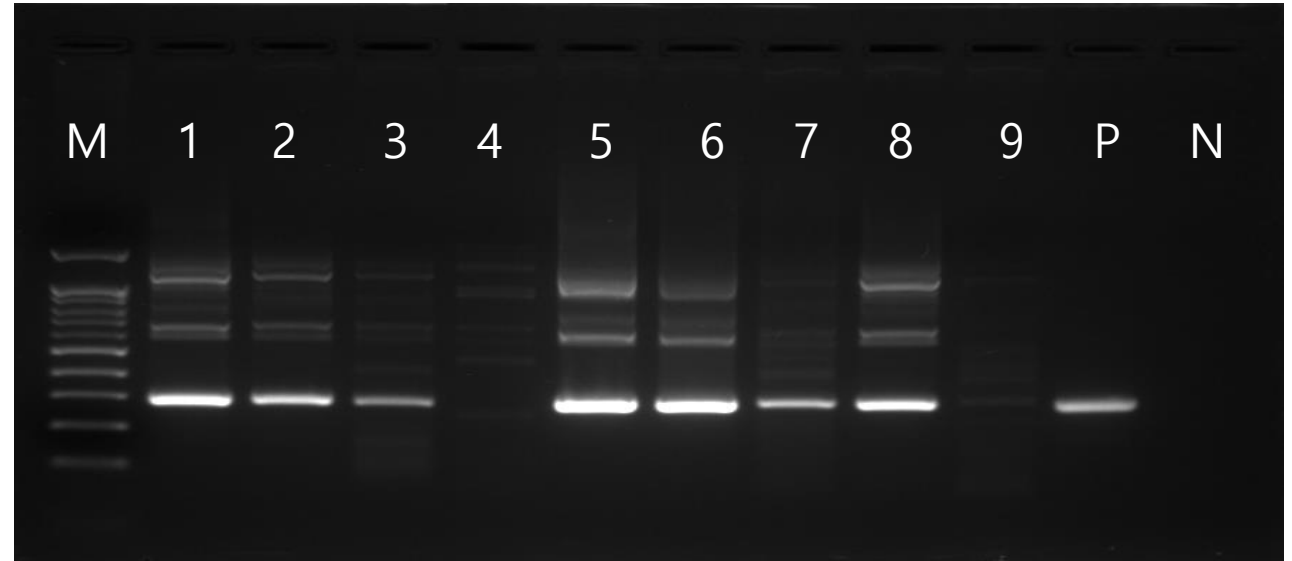
S gene



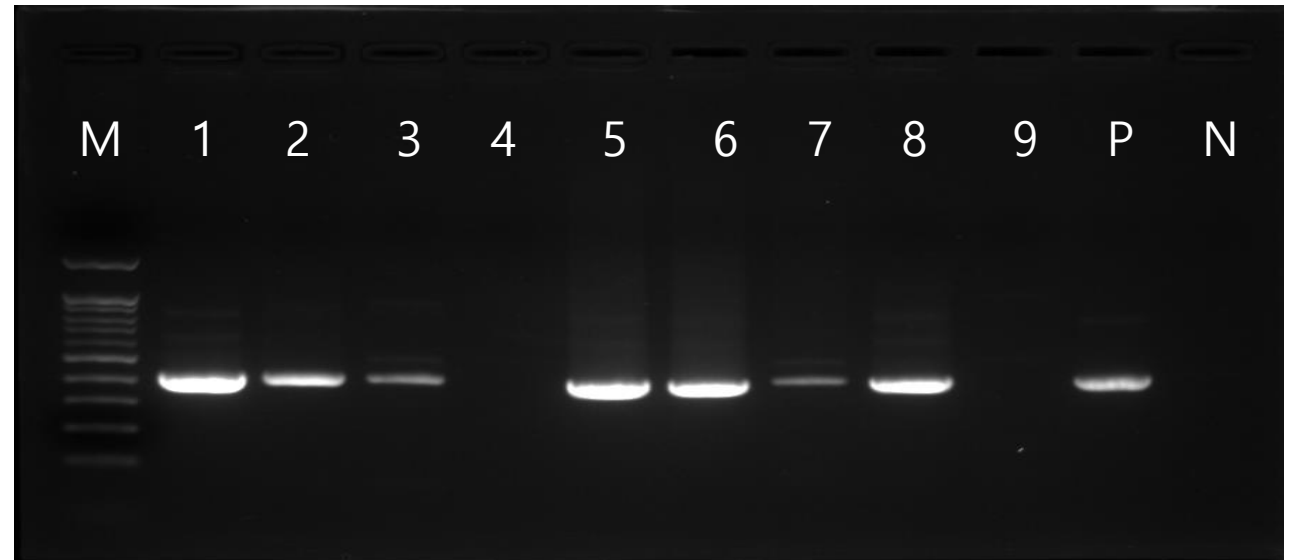
Patient 16

Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	5	1	P	P
NP	7	2	P	P
NP	13	3	P	P
NP	20	4	N	N
Sputum	5	5	P	P
Sputum	7	6	P	P
Sputum	20	7	P	P
Saliva	5	8	P	P
Saliva	7	9	N	N

N gene



S gene

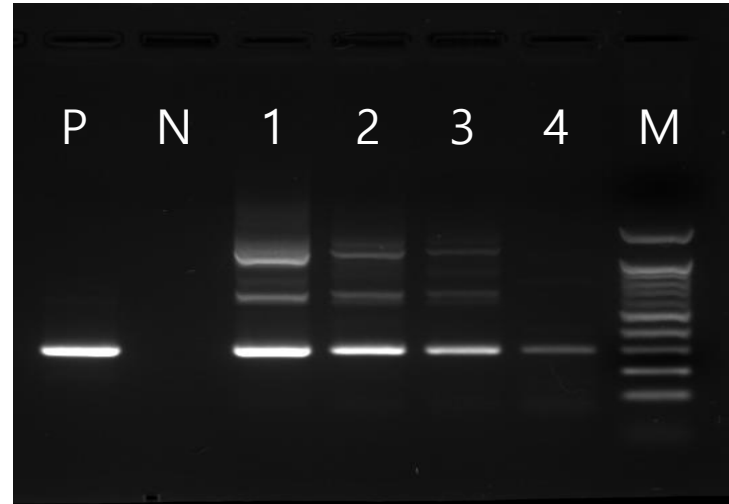


Patient 17

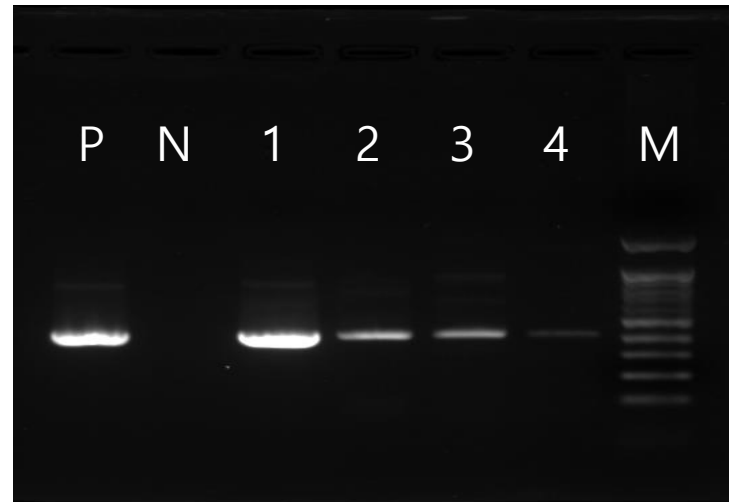
Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	2	1	P	P
NP	4	2	P	P
NP	7	3	P	P
NP	14	4	P	N

- **SP-4: No significant similarity found**

N gene



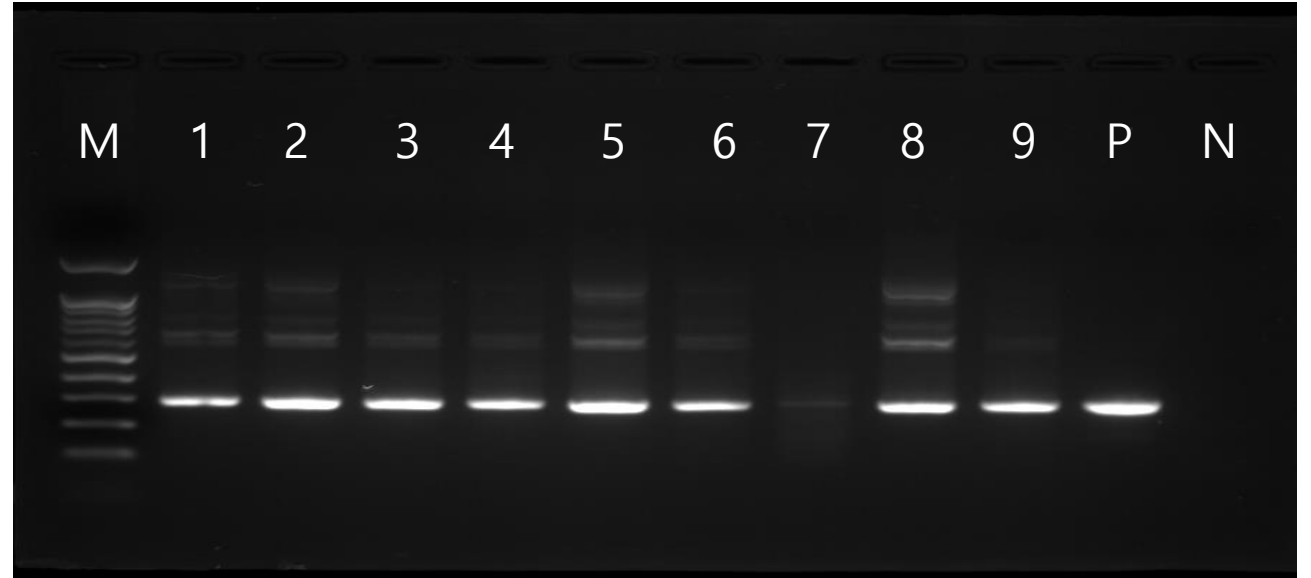
S gene



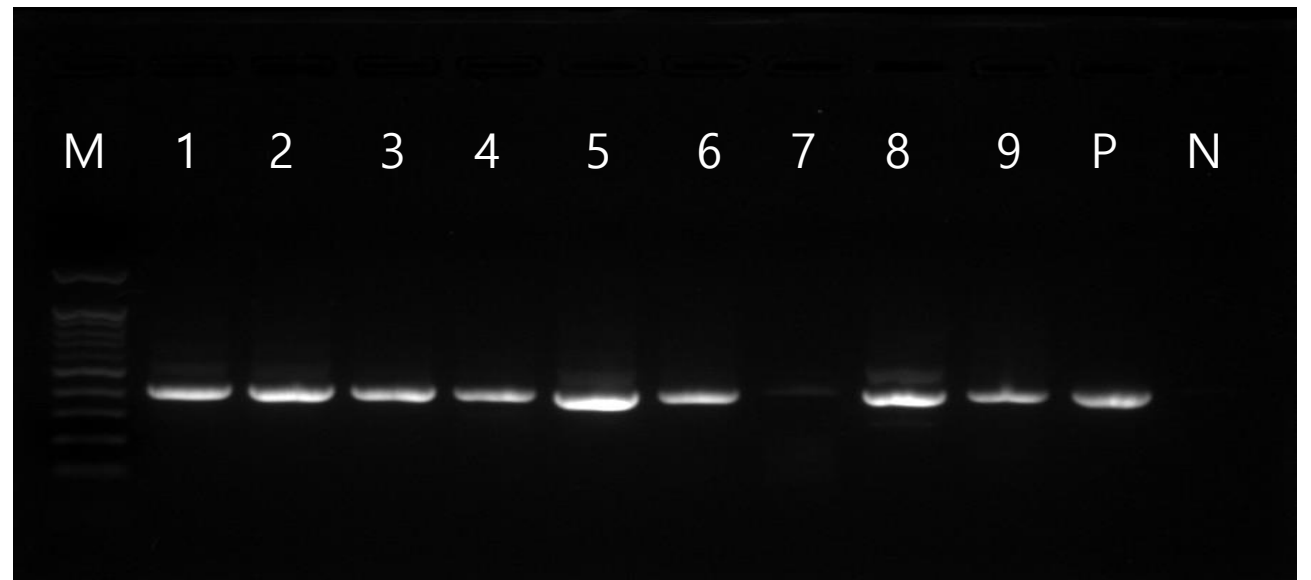
Patient 18

Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	4	1	P	P
NP	7	2	P	P
NP	11	3	P	P
NP	13	4	P	P
Sputum	7	5	P	P
Sputum	11	6	P	P
Sputum	13	7	N	N
Saliva	4	8	P	P
Saliva	11	9	P	P

N gene



S gene

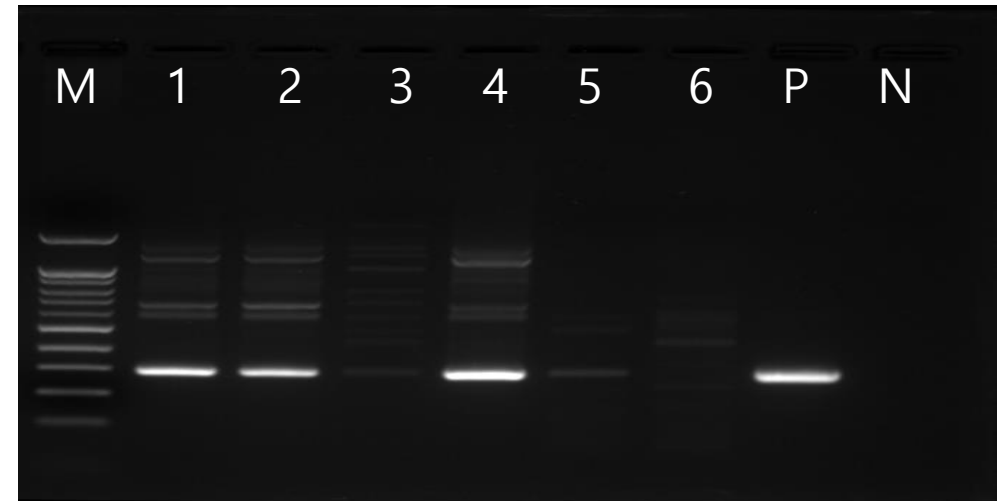


Patient 19

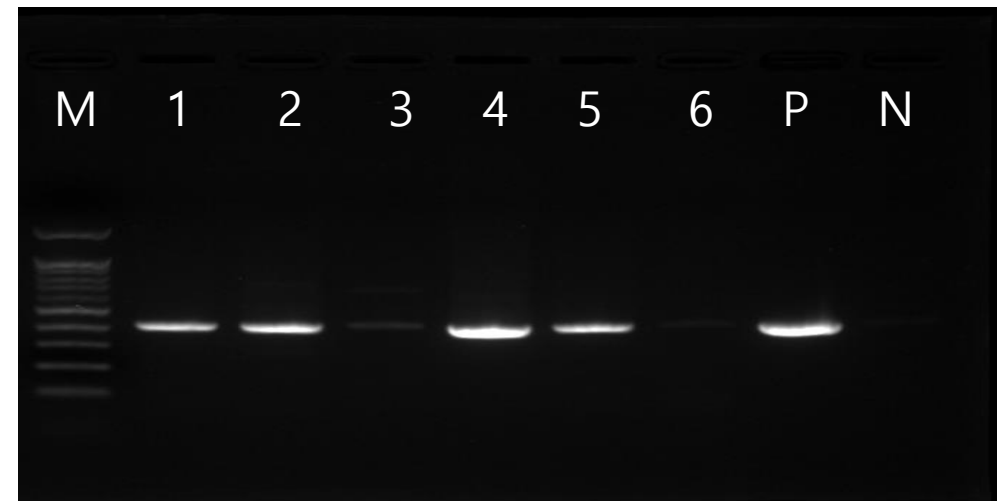
Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	3	1	P	P
NP	10	2	P	P
NP	17	3	N	N
Sputum	7	4	P	P
Saliva	7	5	P	P
Saliva	17	6	N	N

- NP-3: 94% Identity → negative
- NP-5: 98% Identity → positive
- SP-3: not sequenced 5' leader → negative

N gene



S gene

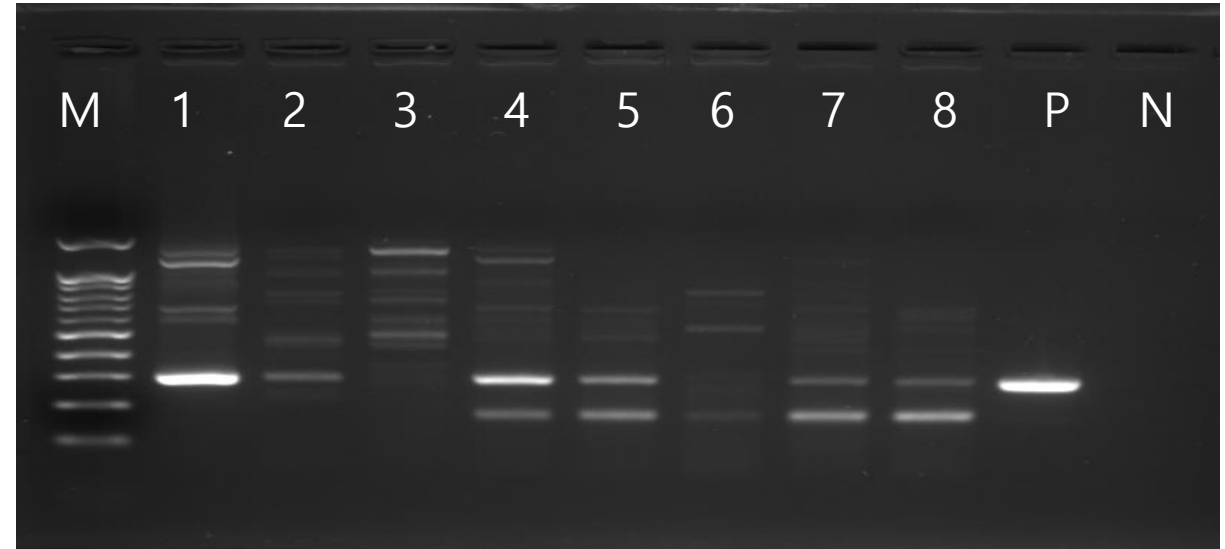


Patient 20

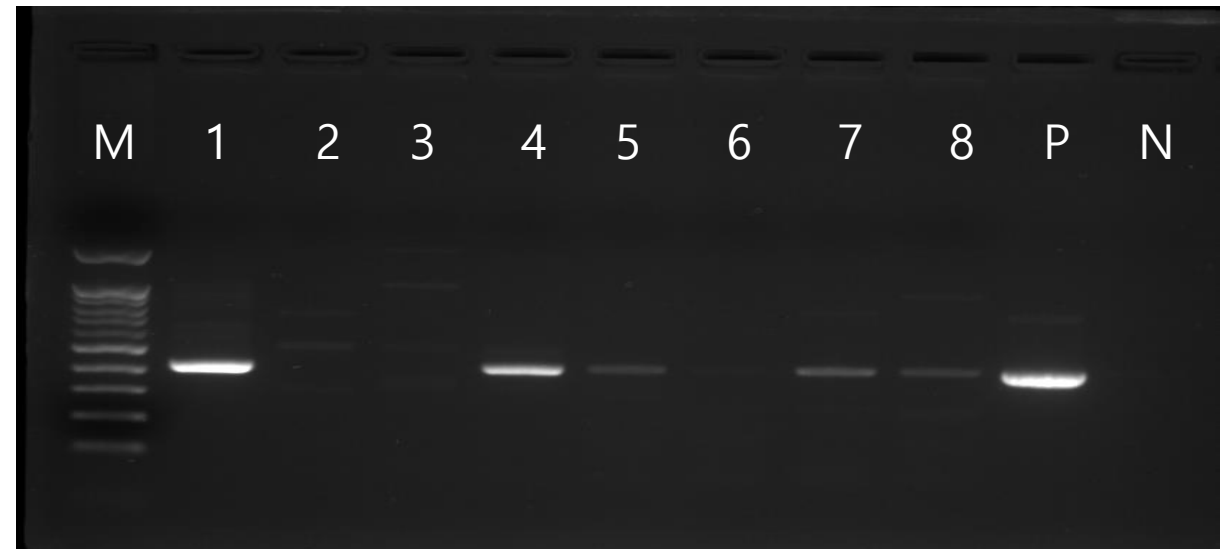
Specimen	SOD	Band #	SGR-NP	SGR-SP
NP	5	1	P	P
NP	7	2	P	N
NP	11	3	N	N
Sputum	5	4	N	N
Sputum	7	5	N	N
Sputum	11	6	N	N
Saliva	5	7	N	N
Saliva	7	8	N	N

- NP-4, 5: mixed sequences → Negative
- NP-7: 91% Identity → Negative
- NP-8: 97% Identity → Negative
- SP-4, 5: not sequenced 5' leader → negative
- SP-7: not sequenced 5' leader → negative
- SP-8: No significant similarity found

N gene



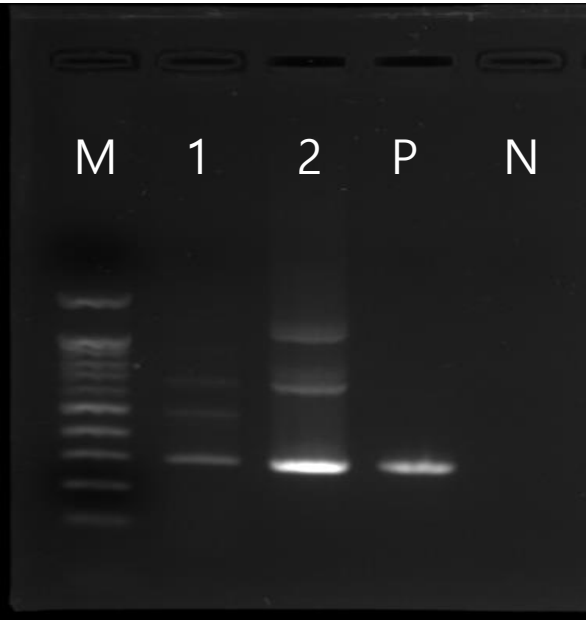
S gene



Additional specimens

1: patient #13: 2020-09-08, Saliva
2: patient # 18: 2020-11-20, Sputum

N gene



S gene

