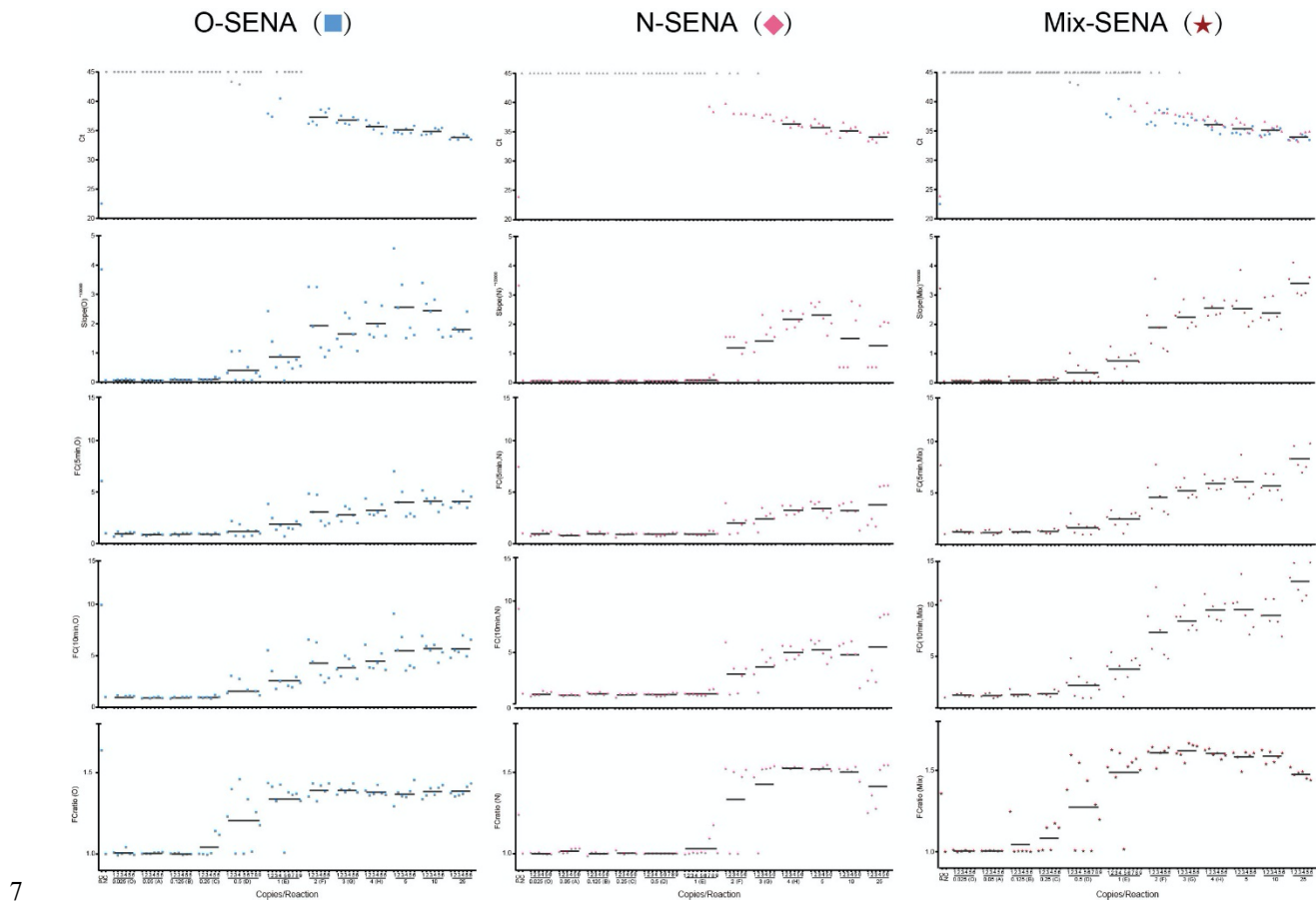


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Supplementary Materials for

A CRISPR-Cas12a-based specific enhancer for more sensitive detection of SARS-CoV-2 infection

6 Supplementary Figures

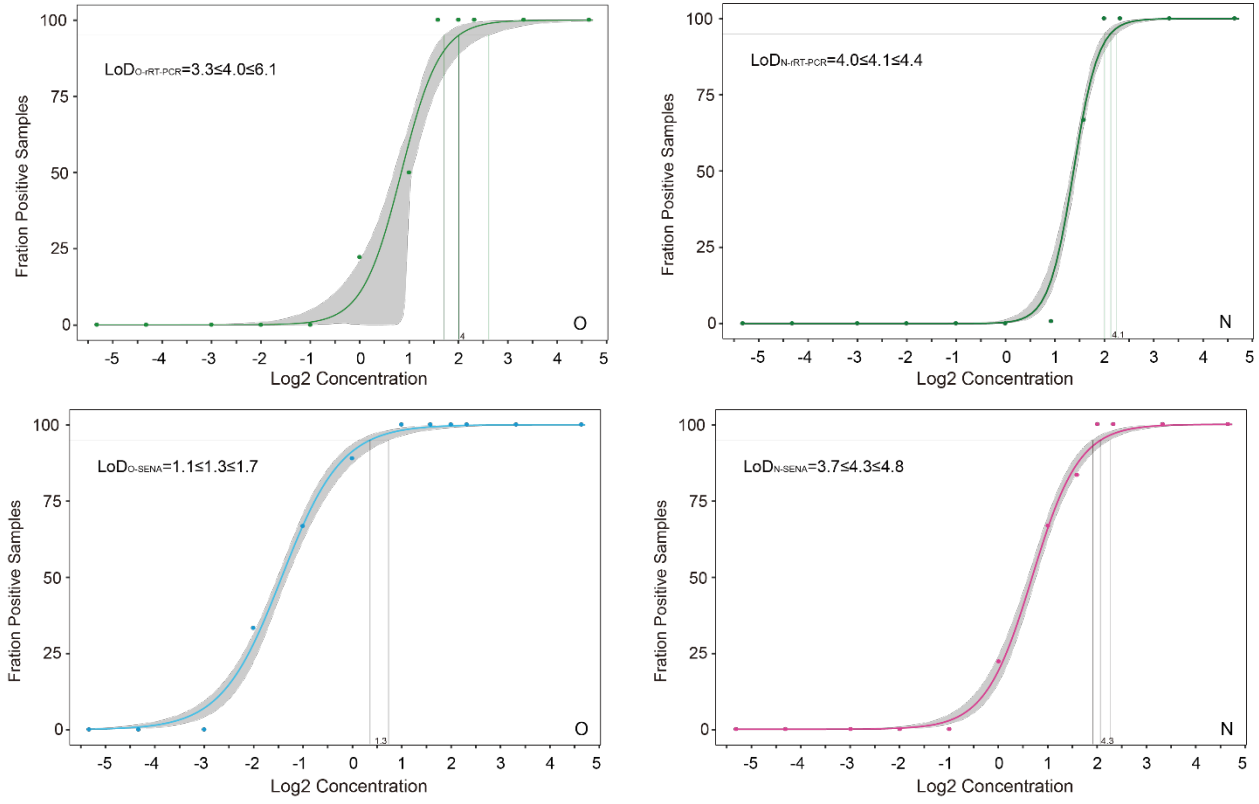


7
 8 **Fig. 1.** Systematic titration of serially diluted SARS-CoV-2 standard RNA templates detected by
 9 rRT-PCR followed by SENA. The design of this experiment is illustrated in detail in Materials
 10 and Methods 4. All the resulted readouts are listed in Supplementary Table 2 and are plotted in
 11 this figure for individual tests being numbered with each of the concentration of the templates used
 12 as marked in the bottom X-axis. The very top horizontal row of the panel matrix is the test of rRT-
 13 PCR with Ct values detected via fluorescence of FAM (● for *O* gene), VIC (▲ for *N* gene) and
 14 both, respectively. In case $Ct \geq 45$, *i.e.*, no fluorescence signal of PCR amplification could be
 15 detected, the corresponding symbols were shown in grey (● or ▲). The vertical lists from the
 16 second row of the panel matrix represent the SENA reagent used for the detection: O-SENA (■),
 17 N-SENA (◆) and mix-SENA (★). The parameters of SENA detection are shown from the second
 18 top row to the bottom row as slope-5 min, FC-5 min, FC-10 min and FCratio-10 min/5 min

19 (abbreviated as *FCratio*), respectively and are all marked on their corresponding Y-axis. The rRT-
20 PCR amplicons are all subject for NGS for verification (Supplementary Table 2).

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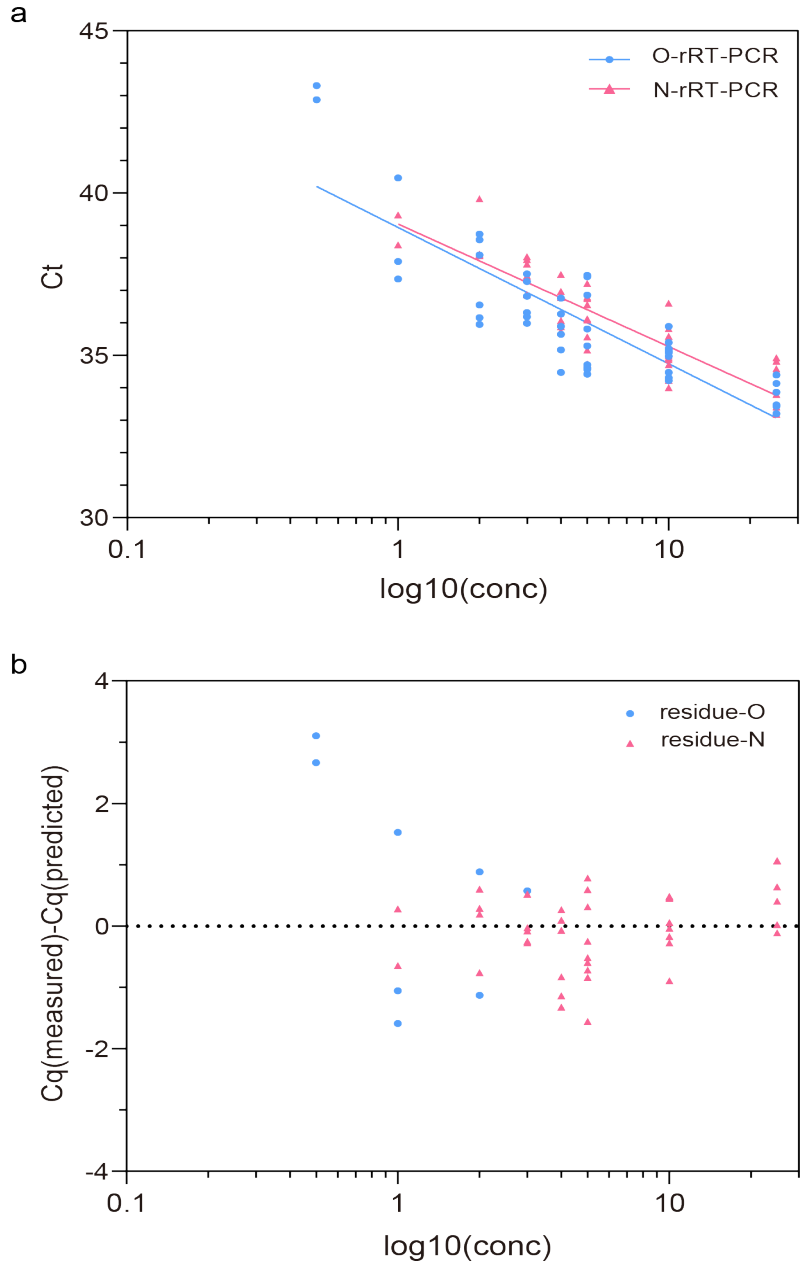
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25 **Fig. 2.** Determination of the LoD values with 95% CI for both rRT-PCR (O-Ct and N-Ct, both
26 green dots) and SENA (N-FCratio, pink dots; and O-FCratio, blue dots) based on the systematic
27 titration (Materials and Methods 4.4). All the experimental and analytical details are described in
28 the text.

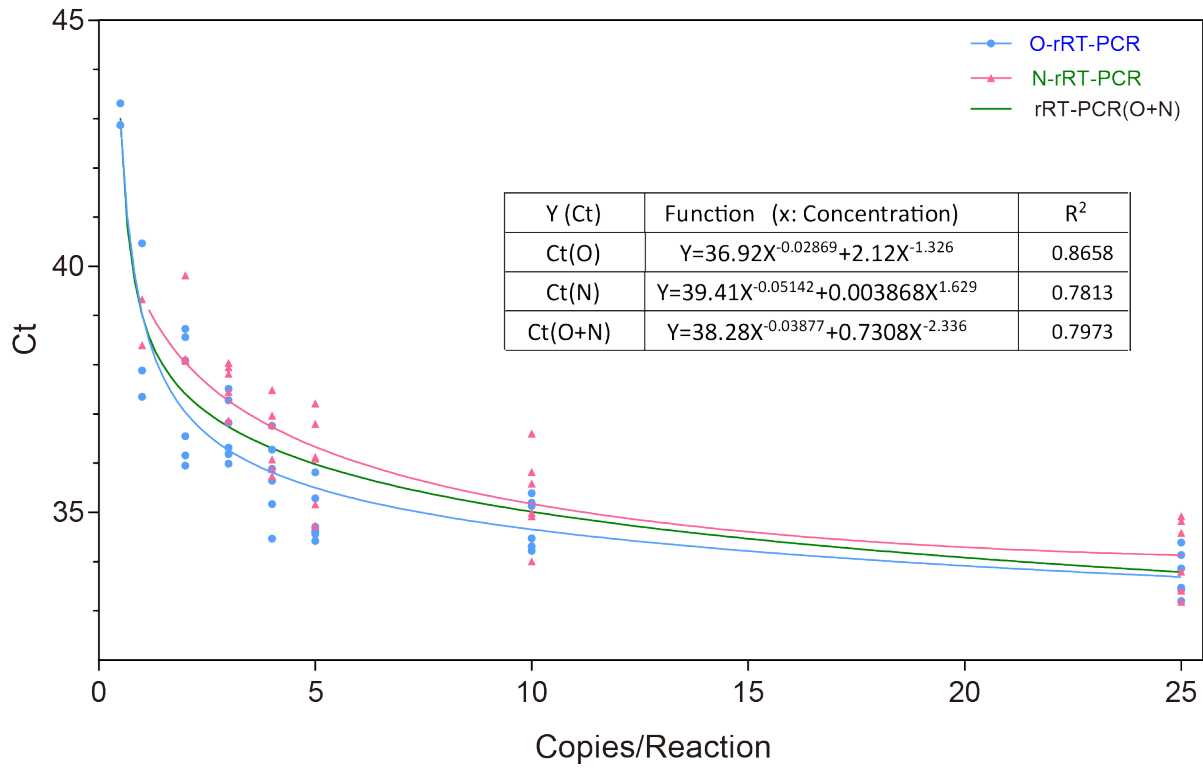
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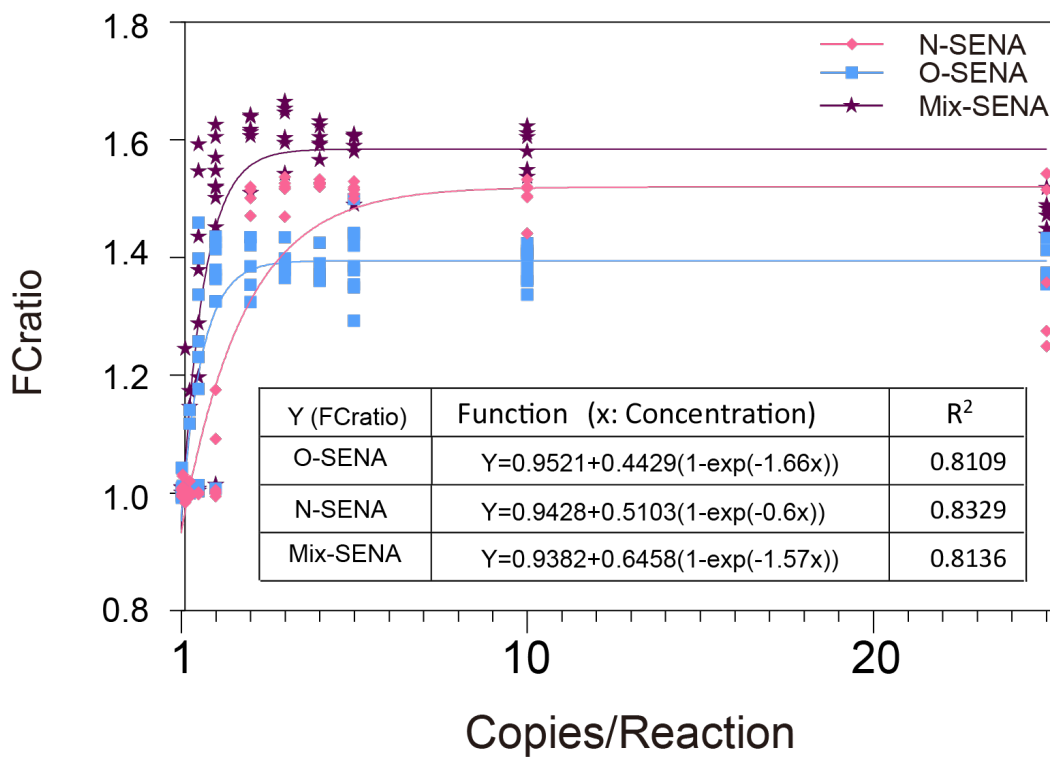
31 **Fig. 3.** Linear regression (a) of the Ct values (● for *O* gene and ▲ for *N* gene) corresponding to
 32 the rRT-PCR titration experiment. The regression function for Ct (*O*) is: $Y=38.94-4.198*\log(x)$
 33 ($R^2=0.7126$) and the regression function for Ct (*N*) is: $Y=39.05-3.776*\log(x)$ ($R^2=0.7662$), Panel
 34 b is the residue plot for these two regressions.

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Fig. 4. Regression of rRT-PCR Ct-values with the concentration of the templates (copies/Rx). The data is from Supplementary Table 2. The regression functions for Ct-values of *O* gene (—), *N* gene (—) and both (—) (Functions 1) are illustrated as a table inside of the panel.



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Fig. 5. Regression of SENA *FCratio* with the concentration of the templates (copies/Rx). The data is from Supplementary Table 2. The regression functions for *FCratios* of O-SENA (—), N-SENA (—) and mix-SENA (—) (Functions 2) are illustrated as a table inside of the panel.

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Table 1a. Summary of the commercial diagnostic kits used in the experiment

Kits	Target gene	Fluorescence channel	Cycles/Cut off	criteria for positive Interpretation (Ct)
BG	<i>O, N</i>	FAM, VIC	40/38	$O_{(Ct)} \leq 38$ and $N_{(Ct)} \leq 38$
LR	<i>O, N, E</i>	FAM, HEX, TEXAS RED	45/43	$O_{(Ct)} \leq 43$, and $N_{(Ct)} / E_{(Ct)} \leq 43$ (either $N_{(Ct)}$ or $E_{(Ct)}$ is equal or less than 43);
BGI	<i>O</i>	FAM	40/38	$O_{(Ct)} \leq 38$

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BG, BioGerm™; LR, Liferiver™; BGI, Beijing Genomics Institute.

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Table 1b. Oligo nucleotide sequences of crRNA for SENA assay in this study

crRNA	Oligo nucleotide (5'-3')^a	Target genes	Standards^b
crRNA_LR_O4	<i>TGTCTGATGTTGGTGATAGTGCGATCTACAAG</i> AGTAGAAATTCCTATAGTGAGTCGTATTA	<i>O</i>	WHO (LR)
crRNA5.3.1	<i>AGTGTAAGTACAGCAAGAAATACCACATCTACAAG</i> AGTAGAAATTCCTATAGTGAGTCGTATTA	<i>E</i>	WHO (LR)
FcrRNA3.7.1	<i>GGAGTTGATCACAACTACAGCCAATCTACAAG</i> AGTAGAAATTCCTATAGTGAGTCGTATTA	<i>O</i>	Chinese CDC (BG)
FcrRNA6.7.1	<i>CAATCTGTCAAGCAGCAGCAAAGATCTACAAG</i> AGTAGAAATTCCTATAGTGAGTCGTATTA	<i>N</i>	Chinese CDC (BG)
crRNA_BGI_O1	<i>ACAGTTTGTGACTATCATCATCTACAAGA</i> GTAGAAATTCCTATAGTGAGTCGTATTA	<i>O</i>	(BGI)

54 **Note:**

55 ^aThe nucleic acid sequences complementary to the guide sequences are shown in italic and the bold sequences were
56 complementary to the direct repeats (DR) of LbCas12a crRNA. The underlined sequence was complementary to the
57 T7 promoter, and thus, able to be aligned with the T7 promoter to initiate the T7 RNA polymerase catalyzed *in vitro*
58 transcription to synthesize the designed crRNA.

59 ^bcrRNAs prepared with the oligo nucleotides listed in this table specifically target the rRT-PCR amplified gene
60 fragments of *O, E* or *N* in SARS-CoV-2, designed by the suppliers (labelled in the parenthesis) of individual
61 commercial kits based on the standards of WHO, Chinese CDC or itself.

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Table 2a. Original data of the titration experiment (Low template conc)

Tests		Ct		N-SENA				O-SENA				mix-SENA			NGS reads		
Conc	Replica	O	N	Slope (x100000)	FC 5min	FC 10min	FCratio	Slope (x100000)	FC 5min	FC 10min	FCratio	Slope (x100000)	FC 5min	FC 10min	FCratio	Total	Matched
0.025 Copies/Rx	O1	UD	UD	0.853	0.717	0.720	1.004	1.028	0.676	0.682	1.009	1.170	1.227	1.239	1.010	/	/
	O2	UD	UD	1.003	0.830	0.832	1.002	1.574	1.173	1.164	0.992	1.179	1.349	1.345	0.997	/	/
	O3	UD	UD	0.997	0.834	0.840	1.008	1.099	0.743	0.746	1.003	1.281	1.425	1.428	1.002	/	/
	O4	UD	UD	1.402	1.254	1.253	0.999	2.119	1.028	1.072	1.043	1.047	1.118	1.129	1.010	/	/
	O5	UD	UD	1.104	1.068	1.062	0.994	1.424	1.100	1.102	1.002	0.951	1.056	1.057	1.001	/	/
	O6	UD	UD	1.217	1.161	1.156	0.995	1.297	1.079	1.074	0.996	0.745	1.165	1.172	1.006	/	/
0.05 Copies/Rx	A1	UD	UD	1.139	0.863	0.871	1.010	1.240	0.857	0.858	1.002	1.015	1.116	1.120	1.004	/	/
	A2	UD	UD	0.905	0.744	0.746	1.002	1.001	0.744	0.746	1.003	1.264	1.390	1.397	1.005	/	/
	A3	UD	UD	1.115	0.834	0.837	1.005	1.137	0.858	0.859	1.001	1.282	1.434	1.444	1.007	/	/
	A4	UD	UD	0.882	0.905	0.931	1.029	0.839	0.928	0.936	1.008	0.896	0.920	0.926	1.006	/	/
	A5	UD	UD	0.769	0.795	0.820	1.031	0.864	1.016	1.025	1.009	0.907	1.041	1.045	1.004	/	/
	A6	UD	UD	0.781	0.781	0.805	1.032	0.807	0.873	0.883	1.012	1.100	1.215	1.223	1.006	/	/
0.125 Copies/Rx	B1	UD	UD	0.068	1.138	1.120	0.984	0.086	0.835	0.838	1.004	0.215	1.465	1.825	1.246	243811	535
	B2	UD	UD	0.073	0.933	0.939	1.006	0.100	0.981	0.987	1.007	0.059	1.153	1.154	1.001	291449	0
	B3	UD	UD	0.072	0.884	0.891	1.008	0.067	0.772	0.778	1.007	0.056	1.118	1.121	1.003	359220	0
	B4	UD	UD	0.069	1.160	1.159	0.999	0.072	1.004	1.000	0.996	0.066	1.253	1.259	1.004	268425	0
	B5	UD	UD	0.058	0.862	0.862	1.000	0.067	1.005	1.003	0.997	0.072	1.289	1.294	1.004	271915	0
	B6	UD	UD	0.071	0.998	1.000	1.002	0.065	0.980	0.979	0.999	0.056	1.168	1.168	1.000	347723	0
0.25 Copies/Rx	C1	UD	UD	0.043	0.589	0.601	1.020	0.098	0.943	0.944	1.001	0.080	1.344	1.350	1.005	280487	0
	C2	UD	UD	0.092	0.941	0.943	1.002	0.070	0.899	0.898	0.999	0.072	1.331	1.343	1.009	327392	0
	C3	UD	UD	0.041	0.870	0.865	0.995	0.090	0.943	0.940	0.996	0.110	1.079	1.237	1.147	370753	570
	C4	UD	UD	0.058	0.954	0.956	1.002	0.070	0.828	0.833	1.005	0.067	1.048	1.059	1.011	313561	2
	C5	UD	UD	0.065	1.022	1.026	1.004	0.177	1.039	1.186	1.142	0.196	1.521	1.785	1.174	313109	59
	C6	UD	UD	0.075	0.968	0.966	0.998	0.132	0.890	0.995	1.118	0.155	1.386	1.591	1.148	332895	47
0.5 Copies/Rx	D1	UD	UD	0.068	0.931	0.929	0.998	0.315	1.108	1.365	1.231	0.401	1.767	2.438	1.380	360678	73
	D2	43.31	UD	0.075	0.980	0.982	1.001	1.052	2.184	3.055	1.399	1.016	3.015	4.803	1.593	394441	54
	D3	UD	UD	0.049	0.903	0.903	1.001	0.061	0.765	0.767	1.003	0.064	1.153	1.162	1.008	289948	0

	D4	42.87	UD	0.041	0.713	0.714	1.001	1.069	1.878	2.741	1.460	0.595	1.951	3.017	1.547	313613	115
	D5	UD	UD	0.047	0.723	0.723	1.000	0.059	0.687	0.688	1.002	0.056	0.938	0.943	1.005	328563	0
	D6	UD	UD	0.051	0.787	0.788	1.001	0.511	1.259	1.683	1.337	0.436	1.719	2.468	1.436	372990	64
	D7	UD	UD	0.057	0.965	0.965	1.000	0.058	0.776	0.787	1.014	0.055	0.944	0.948	1.005	333039	0
	D8	UD	UD	0.070	1.085	1.083	0.998	0.317	1.230	1.548	1.258	0.314	1.765	2.274	1.288	360707	153
	D9	UD	UD	0.068	1.068	1.068	1.000	0.190	0.984	1.159	1.177	0.201	1.477	1.768	1.197	212757	113
	E1	37.89	UD	0.076	0.979	0.974	0.994	2.426	3.844	5.520	1.436	0.803	2.659	4.041	1.520	269723	217
	E2	37.35	UD	0.064	0.884	0.884	1.000	1.386	2.478	3.505	1.414	1.245	3.318	5.395	1.626	457749	219
	E3	UD	UD	0.066	0.906	0.911	1.005	0.502	1.338	1.773	1.325	0.489	1.906	2.777	1.458	369267	69
	E4	40.47	UD	0.053	0.822	0.824	1.002	0.907	1.759	2.509	1.426	0.875	2.524	4.051	1.605	238968	294
1	E5	UD	UD	0.064	0.799	0.805	1.007	0.049	0.704	0.710	1.008	0.069	1.055	1.071	1.015	317126	4
Copies/Rx	E6	UD	UD	0.057	0.789	0.791	1.003	0.682	1.506	2.077	1.379	0.561	1.962	2.985	1.522	252167	172
	E7	UD	39.33	0.171	1.255	1.370	1.092	0.466	1.425	1.943	1.364	0.948	2.977	4.608	1.548	94314	649
	E8	UD	38.40	0.272	1.218	1.431	1.175	0.772	2.145	2.940	1.371	1.001	3.061	4.807	1.570	345634	1183
	E9	UD	UD	0.063	0.958	0.960	1.003	0.551	1.784	2.366	1.326	0.721	2.735	4.108	1.502	296593	383
	F1	36.16	39.82	1.566	3.926	5.968	1.520	3.253	4.850	6.565	1.354	2.309	5.504	8.881	1.614	59563	173
	F2	36.55	UD	1.566	0.906	0.906	1.000	1.889	3.074	4.408	1.434	1.353	3.482	5.716	1.642	3736	116
2	F3	35.95	38.12	1.566	2.287	3.434	1.501	3.251	4.742	6.279	1.324	3.554	7.748	11.703	1.510	334475	0
Copies/Rx	F4	38.56	UD	0.078	1.027	1.026	0.998	1.182	2.199	3.125	1.421	1.885	4.694	7.546	1.607	257994	0
	F5	38.09	38.08	0.989	1.842	2.710	1.471	0.864	1.729	2.396	1.386	1.175	3.195	5.169	1.618	243367	418
	F6	38.73	38.07	1.375	2.261	3.427	1.515	1.079	1.972	2.828	1.434	1.076	2.910	4.772	1.640	253600	148
	G1	36.32	37.82	1.046	1.955	2.874	1.470	1.476	2.678	3.657	1.365	2.295	5.505	8.828	1.604	/	/
	G2	37.51	UD	0.077	1.089	1.091	1.002	1.204	2.146	3.001	1.399	2.416	5.537	8.834	1.596	/	/
3	G3	36.19	37.45	2.320	3.467	5.261	1.517	2.370	3.623	5.003	1.381	2.856	6.450	9.951	1.543	/	/
Copies/Rx	G4	35.99	38.04	1.649	2.674	4.066	1.521	2.182	3.353	4.680	1.396	1.869	4.530	7.544	1.665	/	/
	G5	37.28	37.95	1.884	2.929	4.469	1.526	1.632	2.766	3.968	1.434	2.061	4.830	7.988	1.654	/	/
	G6	36.82	36.87	1.566	2.434	3.742	1.537	1.068	1.993	2.749	1.379	1.933	4.580	7.544	1.647	/	/
	H1	36.76	36.97	2.458	3.687	5.634	1.528	2.730	4.359	6.059	1.390	2.904	6.800	11.041	1.624	/	/
	H2	35.89	37.49	1.826	2.780	4.245	1.527	1.629	2.830	3.850	1.361	2.291	5.442	8.883	1.632	/	/
4	H3	35.17	35.74	2.455	3.681	5.597	1.520	1.538	2.774	3.799	1.369	2.616	6.185	9.861	1.594	/	/
Copies/Rx	H4	36.28	36.78	1.893	2.832	4.340	1.533	1.916	3.021	4.305	1.425	2.332	5.328	8.553	1.605	/	/
	H5	34.47	36.08	2.095	3.103	4.735	1.526	2.614	3.803	5.219	1.372	2.370	5.383	8.432	1.567	/	/

	H6	35.65	35.88	2.349	3.443	5.248	1.524	1.580	2.665	3.633	1.363	2.817	6.343	10.098	1.592	/	/	
	I1	34.61	36.13	2.720	4.079	6.185	1.516	4.567	7.015	9.071	1.293	2.631	6.312	10.145	1.607	/	/	
	I2	34.71	37.22	2.589	3.831	5.823	1.520	2.537	4.017	5.538	1.379	2.805	6.481	10.243	1.580	/	/	
	I3	34.42	36.46	2.759	4.047	6.133	1.515	3.327	5.023	6.806	1.355	3.858	8.710	12.980	1.490	/	/	
5	Copies/Rx	I4	35.29	36.09	2.196	3.205	4.903	1.530	1.503	2.635	3.556	1.350	2.395	5.572	8.967	1.609	/	/
	I5	34.57	34.73	1.607	2.499	3.860	1.545	1.852	2.908	4.030	1.386	1.922	4.474	7.115	1.590	/	/	
	I6	35.81	35.16	2.029	2.992	4.512	1.508	1.610	2.629	3.825	1.455	2.106	4.870	7.825	1.607	/	/	

Note: UD, undetected. /, PCR product was not analyzed by NGS.

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Table 2b. Original data of the titration experiment (High template conc)

Tests		Ct		N-SENA				O-SENA				mix-SENA			NGS reads		
Conc	Replica	O	N	Slope (x100000)	FC 5min	FC 10min	FCratio	Slope (x100000)	FC 5min	FC 10min	FCratio	Slope (x100000)	FC 5min	FC 10min	FCratio	Total	Matched
10 Copies/Rx	J1	34.23	34.01	0.528	3.700	5.625	1.520	3.394	5.168	6.910	1.337	2.232	5.499	8.931	1.624	/	/
	J2	34.31	36.61	0.528	3.898	5.857	1.503	2.679	4.355	5.923	1.360	2.921	6.863	10.553	1.538	/	/
	J3	34.47	34.99	0.528	3.163	4.802	1.518	2.412	3.913	5.495	1.404	2.146	5.230	8.432	1.612	/	/
	J4	35.39	35.59	2.785	4.042	6.083	1.505	2.817	4.434	6.047	1.364	2.966	6.814	10.559	1.550	/	/
	J5	35.14	35.82	2.130	3.131	4.801	1.533	1.794	3.069	4.321	1.408	2.258	5.290	8.360	1.580	/	/
	J6	35.45	34.92	2.637	1.273	1.526	1.442	1.539	3.772	5.327	1.424	1.834	4.311	6.923	1.606	/	/
25 Copies/Rx	H1	33.47	33.42	0.528	1.798	2.247	1.250	1.560	3.491	4.798	1.374	3.551	8.312	12.625	1.519	/	/
	H2	33.86	33.80	0.528	2.398	3.256	1.358	1.842	4.055	5.493	1.355	4.112	9.547	14.051	1.472	/	/
	H3	33.43	33.19	0.528	1.655	2.111	1.276	1.738	3.922	5.339	1.361	3.062	7.712	11.442	1.484	/	/
	H4	34.39	34.59	1.930	5.532	8.381	1.515	1.738	5.083	6.964	1.370	2.991	6.980	10.400	1.490	/	/
	H5	34.14	34.82	2.073	5.624	8.676	1.543	2.412	3.485	4.925	1.413	3.071	7.517	10.900	1.450	/	/
	H6	33.45	34.92	2.047	5.634	8.693	1.543	1.502	4.567	6.548	1.434	3.605	9.792	14.100	1.440	/	/

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Note: /, PCR product was not analyzed by NGS.

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Table 3. Comparison of SARS-CoV-2 measurement on clinical specimens by rRT-PCR and SENA

Patient No.	Specimens	Clinical features		Kit	qPCR				SENA		NG S	Final outcome	Sample origin
		Symptoms	Diagnosis		Ct Value (E)	Ct Value (O)	Ct Value (N)	Interpretation	FCratio Value	Interpretation			
P001	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	29.55	29.47	+	1.584	+	/	Consistent Positive	SZII
P002	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	26.91	27.04	+	1.640	+	/	Consistent Positive	SZII
P003	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	33.77	33.88	+	1.570	+	/	Consistent Positive	SZII
P004	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	33.47	33.46	+	1.587	+	/	Consistent Positive	SZII
P005	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	33.83	34.24	+	1.553	+	/	Consistent Positive	SZII
P006	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	32.6	32.4	+	1.589	+	/	Consistent Positive	SZII
P007	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	33.72	34.47	+	1.550	+	/	Consistent Positive	SZII
P008	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	30.13	29.73	+	1.578	+	/	Consistent Positive	SZII
P009	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	34.75	34.81	+	1.535	+	/	Consistent Positive	SZII
P010	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	30.54	30.72	+	1.617	+	/	Consistent Positive	SZII
P011	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	1.003	-	/	Consistent Negative	SZII
P012	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative	SZII
P013	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.998	-	/	Consistent Negative	SZII
P014	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative	SZII
P015	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.996	-	/	Consistent Negative	SZII
P016	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative	SZII

P017	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.993	-	/	Consistent Negative	SZII
P018	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	1.003	-	/	Consistent Negative	SZII
P019	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative	SZII
P020	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.999	-	/	Consistent Negative	SZII
P021	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative	SZII
P022	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.997	-	/	Consistent Negative	SZII
P023	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.994	-	/	Consistent Negative	SZII
P024	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.997	-	/	Consistent Negative	SZII
P025	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	0.996	-	/	Consistent Negative	SZII
P026	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	18.00	20.00	+	1.447	+	/	Consistent Positive	SZII
P027	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	26.00	27.50	+	1.290	+	/	Consistent Positive	SZII
P028	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	36.09	+	1.386	+	+	Uncertain Positive	SZII
P029	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	35.88	+	1.546	+	+	Uncertain Positive	SZII
P030	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	1.015	-	-	Consistent Negative	SZII
P031	Oropharyngeal swab	Asymptomatic	Close contacts	BG	N/A	>40	>40	-	1.017	-	-	Consistent Negative	SZII
P032	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	37.98	+	1.210	+	+	Uncertain Positive	SZII
P033	Oropharyngeal swab	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.024	-	-	Consistent Negative	SZII
P034	Anal swabs	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.012	-	-	Consistent Negative	SZII

P035	Oropharyngeal swab	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.015	-	-	Consistent	SZII
P036	Anal swabs	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.008	-	/	Negative Consistent	SZII
P037	Oropharyngeal swab	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.016	-	-	Negative Consistent	SZII
P038	Anal swabs	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.022	-	-	Negative Consistent	SZII
P039	Oropharyngeal swab	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.014	-	-	Negative Consistent	SZII
P040	Anal swabs	Fever, Dyspnea	Pneumonia	BG	N/A	>40	>40	-	1.014	-	-	Negative Consistent	SZII
P041	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.994	-	/	Negative Consistent	SZII
P042	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.011	-	/	Negative Consistent	SZII
P043	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.006	-	/	Negative Consistent	SZII
P044	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.018	-	/	Negative Consistent	SZII
P045	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.000	-	/	Negative Consistent	SZII
P046	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.988	-	/	Negative Consistent	SZII
P047	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.014	-	/	Negative Consistent	SZII
P048	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.002	-	/	Negative Consistent	SZII
P049	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.010	-	/	Negative Consistent	SZII
P050	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.006	-	/	Negative Consistent	SZII

P051	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.004	-	/	Consistent Negative	SZII
P052	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.998	-	/	Consistent Negative	SZII
P053	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.016	-	/	Consistent Negative	SZII
P054	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.998	-	/	Consistent Negative	SZII
P055	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	39.47	>40	Uncertain	0.995	-	-	Uncertain Negative	SZII
P056	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.024	-	/	Consistent Negative	SZII
P057	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.008	-	/	Consistent Negative	SZII
P058	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.998	-	/	Consistent Negative	SZII
P059	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative	SZII
P060	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.014	-	/	Consistent Negative	SZII
P061	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.010	-	/	Consistent Negative	SZII
P062	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.008	-	/	Consistent Negative	SZII
P063	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.007	-	/	Consistent Negative	SZII
P064	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.005	-	/	Consistent Negative	SZII
P065	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.016	-	/	Consistent Negative	SZII
P066	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII

P067	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative Consistent	SZII
P068	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.009	-	/	Consistent Negative Consistent	SZII
P069	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.005	-	/	Consistent Negative Consistent	SZII
P070	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.009	-	/	Consistent Negative Consistent	SZII
P071	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.003	-	/	Consistent Negative Consistent	SZII
P072	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.952	-	/	Consistent Negative Consistent	SZII
P073	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.009	-	/	Consistent Negative Consistent	SZII
P074	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.004	-	/	Consistent Negative Consistent	SZII
P075	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.992	-	/	Consistent Negative Consistent	SZII
P076	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.992	-	/	Consistent Negative Consistent	SZII
P077	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative Consistent	SZII
P078	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.996	-	/	Consistent Negative Consistent	SZII
P079	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative Consistent	SZII
P080	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.987	-	/	Consistent Negative Consistent	SZII
P081	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.009	-	/	Consistent Negative Consistent	SZII
P082	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.010	-	/	Consistent Negative	SZII

P083	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.999	-	/	Consistent Negative Consistent	SZII
P084	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.983	-	/	Consistent Negative Consistent	SZII
P085	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.011	-	/	Consistent Negative Consistent	SZII
P086	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.986	-	/	Consistent Negative Consistent	SZII
P087	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.990	-	/	Consistent Negative Consistent	SZII
P088	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.002	-	/	Consistent Negative Consistent	SZII
P089	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.002	-	/	Consistent Negative Consistent	SZII
P090	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative Consistent	SZII
P091	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	39.70	>40	Uncertain	0.992	-	-	Uncertain Negative	SZII
P092	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative Consistent	SZII
P093	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.004	-	/	Consistent Negative Consistent	SZII
P094	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.999	-	/	Consistent Negative Consistent	SZII
P095	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.008	-	/	Consistent Negative Consistent	SZII
P096	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.006	-	/	Consistent Negative Consistent	SZII
P097	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.003	-	/	Consistent Negative Consistent	SZII
P098	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.010	-	/	Consistent Negative	SZII

P099	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII
P100	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.006	-	/	Consistent Negative	SZII
P101	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.997	-	/	Consistent Negative	SZII
P102	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.004	-	/	Consistent Negative	SZII
P103	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	40.56	>40	Uncertain	0.996	-	-	Uncertain Negative	SZII
P104	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.988	-	/	Consistent Negative	SZII
P105	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII
P106	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.002	-	/	Consistent Negative	SZII
P107	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative	SZII
P108	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.008	-	/	Consistent Negative	SZII
P109	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.005	-	/	Consistent Negative	SZII
P110	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.031	-	/	Consistent Negative	SZII
P111	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.004	-	/	Consistent Negative	SZII
P112	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.008	-	/	Consistent Negative	SZII
P113	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.013	-	/	Consistent Negative	SZII
P114	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.994	-	/	Consistent Negative	SZII

P115	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.998	-	/	Consistent Negative	SZII
P116	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative	SZII
P117	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative	SZII
P118	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.005	-	/	Consistent Negative	SZII
P119	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.992	-	/	Consistent Negative	SZII
P120	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.981	-	/	Consistent Negative	SZII
P121	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.015	-	/	Consistent Negative	SZII
P122	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII
P123	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII
P124	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.003	-	/	Consistent Negative	SZII
P125	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative	SZII
P126	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.987	-	/	Consistent Negative	SZII
P127	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.994	-	/	Consistent Negative	SZII
P128	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.989	-	/	Consistent Negative	SZII
P129	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.978	-	/	Consistent Negative	SZII
P130	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.991	-	/	Consistent Negative	SZII

P131	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII
P132	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	1.001	-	/	Consistent Negative	SZII
P133	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.998	-	/	Consistent Negative	SZII
P134	Oropharyngeal swab	Fever	COVID-19 suspected	BG	N/A	>40	>40	-	0.995	-	/	Consistent Negative	SZII
P135	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	26.72	26.41	+	1.502	+	/	Consistent Positive	SZII
P136	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	24.38	24.02	+	1.447	+	/	Consistent Positive	SZII
P137	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	38.87	36.28	Uncertain	1.581	+	/	Uncertain Positive	SZII
P138	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	39.22	38.21	Uncertain	1.609	+	/	Uncertain Positive	SZII
P139	Oropharyngeal swab	Fever, cough	COVID-19 suspected	BG	N/A	36.26	33.90	+	1.646	+	/	Consistent Positive	SZII
P140-1	Throat swab	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	0.992	-	/	Consistent Negative	DF
P140-2	Nasopharyngeal swab (Left)	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.003	-	/	Consistent Negative	DF
P140-3	Nasopharyngeal swab (Right)	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	35.96	37.24	+	1.430	+	+	Consistent Positive	DF
P140-4	Blood serum	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.002	-	/	Consistent Negative	DF
P140-5	Nasopharyngeal swab	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.006	-	/	Consistent Negative	DF
P140-6	Nasol swab	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.614	+	+	False Negative	DF
P140-7	Nasol swab	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.369	+	+	False Negative	DF
P140-8	Blood serum	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.000	-	/	Consistent Negative	DF
P140-9	Nasopharyngeal swab (Left)	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.004	-	-	Consistent Negative	DF
P140-10	Nasopharyngeal swab (Right)	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.004	-	/	Consistent Negative	DF

P140-11	Throat swab	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.002	-	/	Consistent Negative	DF
P140-12	Serum	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.007	-	/	Consistent Negative	DF
P140-13	Plasma	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.005	-	/	Consistent Negative	DF
P140-14	Fecal	No common respiratory symptoms	Came from Wuhan, suspected	BG	N/A	>40	>40	-	1.002	-	/	Consistent Negative	DF
P141	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	32.68	33.98	33.42	+	1.673	+	+	Consistent Positive	RJ
P142	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	35.76	37.54	36.28	+	1.391	+	+	Consistent Positive	RJ
P143	Nasopharyngeal swab	Fever, Chest pain	COVID-19 suspected	LR	>45	>45	>45	-	1.245	+	+	False Negative	RJ
P144	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	41.92	>45	>45	Uncertain	1.022	-	-	Uncertain Negative	RJ
P145	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	41.42	>45	>45	Uncertain	0.897	-	-	Uncertain Negative	RJ
P146	Nasopharyngeal swab	Chest pain	COVID-19 suspected	LR	42.62	>45	>45	Uncertain	0.898	-	-	Uncertain Negative	RJ
P147	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	41.34	>45	>45	Uncertain	0.730	-	-	Uncertain Negative	RJ
P148	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	42.89	>45	>45	Uncertain	0.812	-	-	Uncertain Negative	RJ
P149	Nasopharyngeal swab	Dyspnea	Pneumonia	LR	42.65	>45	>45	Uncertain	0.768	-	-	Uncertain Negative	RJ
P150	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	41.82	>45	>45	Uncertain	0.991	-	-	Uncertain Negative	RJ
P151	Nasopharyngeal swab	Asymptomatic	Upper respiratory infection	LR	42.14	>45	>45	Uncertain	0.960	-	-	Uncertain Negative	RJ
P152	Nasopharyngeal swab	Dyspnea	COVID-19 suspected	LR	41.74	>45	>45	Uncertain	0.960	-	-	Uncertain Negative	RJ
P153	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	41.84	>45	>45	Uncertain	0.897	-	-	Uncertain Negative	RJ
P154	Nasopharyngeal swab	Chest pain	Heart failure	LR	42.04	>45	>45	Uncertain	0.991	-	-	Uncertain Negative	RJ
P155	Nasopharyngeal swab	cough	Pneumonia	LR	41.12	>45	>45	Uncertain	0.898	-	-	Uncertain Negative	RJ
P156	Nasopharyngeal swab	Fever	Pneumonia	LR	>45	>45	>45	-	0.936	-	/	Consistent Negative	RJ
P157	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.894	-	/	Consistent Negative	RJ

P158	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.970	-	/	Consistent	RJ
P159	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	44.62	>45	>45	-	0.870	-	/	Negative Consistent	RJ
P160	Nasopharyngeal swab	Dyspnea	Diabetes	LR	>45	>45	>45	-	0.817	-	/	Negative Consistent	RJ
P161	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.804	-	/	Negative Consistent	RJ
P162	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	0.859	-	/	Negative Consistent	RJ
P163	Nasopharyngeal swab	Dyspnea	Upper respiratory infection	LR	>45	>45	>45	-	0.815	-	/	Negative Consistent	RJ
P164	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.871	-	/	Negative Consistent	RJ
P165	Nasopharyngeal swab	Cough	Diabetes	LR	>45	>45	>45	-	0.802	-	/	Negative Consistent	RJ
P166	Nasopharyngeal swab	Cough	Diabetes	LR	>45	>45	>45	-	0.990	-	/	Negative Consistent	RJ
P167	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.817	-	/	Negative Consistent	RJ
P168	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	0.760	-	/	Negative Consistent	RJ
P169	Nasopharyngeal swab	Dyspnea	Upper respiratory infection	LR	>45	>45	>45	-	0.802	-	/	Negative Consistent	RJ
P170	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.636	-	/	Negative Consistent	RJ
P171	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.758	-	/	Negative Consistent	RJ
P172	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	43.12	>45	>45	-	0.931	-	/	Negative Consistent	RJ
P173	Nasopharyngeal swab	Chest pain	Pneumonia	LR	>45	>45	>45	-	0.758	-	/	Negative Consistent	RJ

P174	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	0.951	-	/	Consistent	RJ
P175	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.974	-	/	Negative Consistent	RJ
P176	Nasopharyngeal swab	Chest pain	Pneumonia	LR	>45	>45	>45	-	0.683	-	/	Negative Consistent	RJ
P177	Nasopharyngeal swab	Dyspnea	Upper respiratory infection	LR	43.65	>45	>45	-	0.959	-	/	Negative Consistent	RJ
P178	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.926	-	/	Negative Consistent	RJ
P179	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	44.12	>45	>45	-	0.761	-	/	Negative Consistent	RJ
P180	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.685	-	/	Negative Consistent	RJ
P181	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.815	-	/	Negative Consistent	RJ
P182	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.943	-	/	Negative Consistent	RJ
P183	Nasopharyngeal swab	Dyspnea	Pneumonia	LR	>45	>45	>45	-	0.850	-	/	Negative Consistent	RJ
P184	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.758	-	/	Negative Consistent	RJ
P185	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.582	-	/	Negative Consistent	RJ
P186	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.655	-	/	Negative Consistent	RJ
P187	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P188	Nasopharyngeal swab	Fever	Pneumonia	LR	>45	>45	>45	-	0.647	-	/	Negative Consistent	RJ
P189	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.699	-	/	Negative Consistent	RJ

P190	Nasopharyngeal swab	Fever	Pneumonia	LR	>45	>45	>45	-	0.994	-	/	Consistent	RJ
P191	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.764	-	/	Negative Consistent	RJ
P192	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.626	-	/	Negative Consistent	RJ
P193	Nasopharyngeal swab	Cough	Diabetes	LR	>45	>45	>45	-	0.800	-	/	Negative Consistent	RJ
P194	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.674	-	/	Negative Consistent	RJ
P195	Nasopharyngeal swab	Dyspnea	Pneumonia	LR	>45	>45	>45	-	0.589	-	/	Negative Consistent	RJ
P196	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.580	-	/	Negative Consistent	RJ
P197	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.630	-	/	Negative Consistent	RJ
P198	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.846	-	/	Negative Consistent	RJ
P199	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.644	-	/	Negative Consistent	RJ
P200	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.760	-	/	Negative Consistent	RJ
P201	Nasopharyngeal swab	Cough	Pneumonia	LR	>45	>45	>45	-	0.949	-	/	Negative Consistent	RJ
P202	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.905	-	/	Negative Consistent	RJ
P203	Nasopharyngeal swab	Fever	Pneumonia	LR	>45	>45	>45	-	0.799	-	/	Negative Consistent	RJ
P204	Nasopharyngeal swab	Fever	Pneumonia	LR	>45	>45	>45	-	0.905	-	/	Negative Consistent	RJ
P205	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.868	-	/	Negative Consistent	RJ

P206	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.674	-	/	Consistent	RJ
P207	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P208	Nasopharyngeal swab	Chest pain	Pneumonia	LR	>45	>45	>45	-	0.802	-	/	Negative Consistent	RJ
P209	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.630	-	/	Negative Consistent	RJ
P210	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.737	-	/	Negative Consistent	RJ
P211	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.905	-	/	Negative Consistent	RJ
P212	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.999	-	/	Negative Consistent	RJ
P213	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.942	-	/	Negative Consistent	RJ
P214	Nasopharyngeal swab	Cough	Diabetes	LR	>45	>45	>45	-	0.848	-	/	Negative Consistent	RJ
P215	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.772	-	/	Negative Consistent	RJ
P216	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.948	-	/	Negative Consistent	RJ
P217	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.848	-	/	Negative Consistent	RJ
P218	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	0.816	-	/	Negative Consistent	RJ
P219	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.759	-	/	Negative Consistent	RJ
P220	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.825	-	/	Negative Consistent	RJ
P221	Nasopharyngeal swab	Chest pain	Heart failure	LR	>45	>45	>45	-	0.807	-	/	Negative Consistent	RJ

P222	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.654	-	/	Consistent	RJ
P223	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.931	-	/	Negative Consistent	RJ
P224	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.973	-	/	Negative Consistent	RJ
P225	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.985	-	/	Negative Consistent	RJ
P226	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	1.027	-	/	Negative Consistent	RJ
P227	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.011	-	/	Negative Consistent	RJ
P228	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	44.18	>45	>45	-	1.049	-	/	Negative Consistent	RJ
P229	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	0.970	-	/	Negative Consistent	RJ
P230	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.921	-	/	Negative Consistent	RJ
P231	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.906	-	/	Negative Consistent	RJ
P232	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	1.082	-	/	Negative Consistent	RJ
P233	Nasopharyngeal swab	Dyspnea	Pneumonia	LR	>45	>45	>45	-	1.027	-	/	Negative Consistent	RJ
P234	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.926	-	/	Negative Consistent	RJ
P235	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.985	-	/	Negative Consistent	RJ
P236	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.985	-	/	Negative Consistent	RJ
P237	Nasopharyngeal swab	Chest pain	Heart failure	LR	>45	>45	>45	-	1.049	-	/	Negative Consistent	RJ

P238	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	1.032	-	/	Consistent	RJ
P239	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.082	-	/	Negative Consistent	RJ
P240	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.989	-	/	Negative Consistent	RJ
P241	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	1.049	-	/	Negative Consistent	RJ
P242	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.049	-	/	Negative Consistent	RJ
P243	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.906	-	/	Negative Consistent	RJ
P244	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	0.921	-	/	Negative Consistent	RJ
P245	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.843	-	/	Negative Consistent	RJ
P246	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P247	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	1.035	-	/	Negative Consistent	RJ
P248	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P249	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.906	-	/	Negative Consistent	RJ
P250	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	1.066	-	/	Negative Consistent	RJ
P251	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.950	-	/	Negative Consistent	RJ
P252	Nasopharyngeal swab	Dyspnea	Upper respiratory infection	LR	>45	>45	>45	-	0.970	-	/	Negative Consistent	RJ
P253	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.921	-	/	Negative Consistent	RJ

P254	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.027	-	/	Consistent	RJ
P255	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	1.032	-	/	Negative Consistent	RJ
P256	Nasopharyngeal swab	Fever	COVID-19 suspected	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P257	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.901	-	/	Negative Consistent	RJ
P258	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.950	-	/	Negative Consistent	RJ
P259	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.027	-	/	Negative Consistent	RJ
P260	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.066	-	/	Negative Consistent	RJ
P261	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.911	-	/	Negative Consistent	RJ
P262	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P263	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.921	-	/	Negative Consistent	RJ
P264	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.066	-	/	Negative Consistent	RJ
P265	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.901	-	/	Negative Consistent	RJ
P266	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P267	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	43.65	>45	>45	-	0.936	-	/	Negative Consistent	RJ
P268	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.027	-	/	Negative Consistent	RJ
P269	Nasopharyngeal swab	Fever	Upper respiratory infection	LR	>45	>45	>45	-	0.921	-	/	Negative Consistent	RJ

P270	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.066	-	/	Consistent Negative	RJ
P271	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.027	-	/	Consistent Negative	RJ
P272	Nasopharyngeal swab	Dyspnea	Pneumonia	LR	>45	>45	>45	-	0.904	-	/	Consistent Negative	RJ
P273	Nasopharyngeal swab	Cough	Upper respiratory infection	LR	>45	>45	>45	-	1.082	-	/	Consistent Negative	RJ
P274	Nasopharyngeal swab	Fever	Diabetes	LR	>45	>45	>45	-	0.936	-	/	Consistent Negative	RJ
P275	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.066	-	/	Consistent Negative	RJ
P276	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.011	-	/	Consistent Negative	RJ
P277	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	0.877	-	/	Consistent Negative	RJ
P278-1	Nasopharyngeal swab	Asymptomatic	Close contacts	BGI	N/A	36.25	N/A	+	1.068	-	-	False Positive	RJ
P278-2	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.068	-	/	Consistent Negative	RJ
P279-1	Nasopharyngeal swab	Asymptomatic	Close contacts	BGI	N/A	36.89	N/A	+	1.030	-	-	False Positive	RJ
P279-2	Nasopharyngeal swab	Asymptomatic	Close contacts	LR	>45	>45	>45	-	1.030	-	/	Consistent Negative	RJ
P280	Oropharyngeal swab	Fever, Cough, Headache	COVID-19 suspected	BG	N/A	>40	34.27	Uncertain	1.172	+	/	Uncertain Positive	JNCDC
P281	Fecal	Fever, Cough, Rhinobyon	Close contacts	BG	N/A	30.20	30.46	+	1.453	+	/	Consistent Positive	JNCDC
P282	Fecal	Fever, Cough, Rhinobyon	COVID-19 suspected	BG	N/A	38.50	>40	-	1.250	+	/	False Negative	JNCDC

93 Note: N/A, Detection of this gene that was not supported by the kit. "+", Positive; "-", negative; /, PCR product was not analyzed by NGS. Samples in aquamarine background stood for SENA
94 negative but rRT-PCR positive or uncertain diagnosis. Samples in red background stood for SENA positive but rRT-PCR negative or uncertain diagnosis.