

Supplemental information

Transmission, infectivity, and neutralization of a spike L452R SARS-CoV-2 variant

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Table S2. List of California counties and the B.1.427/B.1.429 genomes sequenced from each county, related to Figure 1.

Name of county	# of genomes (total n=2,172)	# of B.1.427/B.1.429 genomes (total n=466)	% of B.1.427/B.1.429 genomes
Santa Clara County	725	134	18.5%
Alameda County	228	71	31.1%
Los Angeles County	168	54	32.1%
San Francisco County	155	32	20.6%
Madera County	100	1	1.0%
Contra Costa County	97	31	32.0%
Monterey County	88	65	73.9%
San Diego County	87	6	6.9%
Mono County	68	13	19.1%
Lake County	50	11	22.0%
Marin County	38	7	18.4%
Mendocino County	34	0	0.0%
Fresno County	32	2	6.3%
San Mateo County	31	6	19.4%
Imperial County	30	2	6.7%
San Joaquin County	28	3	10.7%
Sonoma County	24	3	12.5%
Sutter County	24	1	4.2%
Stanislaus County	21	5	23.8%
Merced County	19	5	26.3%
Solano County	16	1	6.3%
San Bernardino County	10	2	20.0%
Shasta County	10	0	0.0%
Sacramento County	9	0	0.0%
Riverside County	8	1	12.5%
Butte County	7	0	0.0%
El Dorado County	7	0	0.0%
Yuba County	7	0	0.0%
Nevada County	6	1	16.7%
Placer County	5	0	0.0%
Santa Cruz County	4	1	25.0%
Tulare County	4	1	25.0%
Yolo County	4	0	0.0%
Kings County	3	1	33.3%
Napa County	3	1	33.3%
Tehama County	3	1	33.3%
Humboldt County	2	0	0.0%
Mariposa County	2	1	50.0%
San Benito County	2	1	50.0%
Ventura County	2	1	50.0%
Amador County	1	0	0.0%
Orange County	1	0	0.0%
Santa Barbara County	1	0	0.0%
Tuolumne County	1	0	0.0%
Unknown County	7	1	14.3%

Table S3. Plasma samples from convalescent COVID-19 patients and SARS-CoV-2 vaccine recipients used for evaluating neutralizing activity against B.1.427 and B.1.429 lineage viruses, related to Figure 5.

#	Sample Type	Vaccine type	Days post symptom onset	Days post second dose	PRNT50 (WA1)	PRNT50 (B.1.427, #1-21 or B.1.429, #22-31)	PRNT50 (D614G)
1	Convalescent Plasma	-	60	-	3200	800	NT
2	Convalescent Plasma	-	18	-	ND	ND	NT
3	Convalescent Plasma	-	70	-	3200	3200	NT
4	Convalescent Plasma	-	71	-	800	200	NT
5	Convalescent Plasma	-	15	-	400	100	NT
6	Convalescent Plasma	-	49	-	800	100	800
7	Convalescent Plasma	-	23	-	800	100	800
8	Convalescent Plasma	-	36	-	3200	1600	3200
9	Convalescent Plasma	-	31	-	3200	400	3200
10	Vaccine Recipient Plasma	BNT162b2 (Pfizer)	-	28	800	800	NT
11	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	4	100	100	NT
12	Vaccine Recipient Plasma	BNT162b2 (Pfizer)	-	14	800	400	NT
13	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	4	200	100	NT
14	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	14	ND	ND	NT
15	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	18	1600	800	NT
16	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	10	800	400	NT
17	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	10	3200	1600	NT
18	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	11	3200	1600	NT
19	Vaccine Recipient Plasma	BNT162b2 (Pfizer)	-	15	200	100	400
20	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	7	400	100	400
21	Vaccine Recipient Plasma	mRNA-1273 (Moderna)	-	5	400	400	400
22	Convalescent Plasma	-	-	55	2560	2560	2560
23	Convalescent Plasma	-	-	44	1280	640	2560
24	Convalescent Plasma	-	-	85	320	160	320
25	Convalescent Plasma	-	-	72	640	40	160
26	Convalescent Plasma	-	-	62	320	80	320
27	Convalescent Plasma	-	-	56	1280	640	2560
28	Convalescent Plasma	-	-	21	1280	640	1280
29	Convalescent Plasma	-	-	72	1280	160	640
30	Convalescent Plasma	-	-	30	1280	320	2560
31	Convalescent Plasma	-	-	42	640	80	320

Abbreviations: PRNT, plaque reduction neutralization tests; ND, antibody neutralization not detected; NT, not tested; "-", not applicable.

Table S4. Sensitivity analysis exploring the effect of varying the serial interval on the calculated logistic growth rate, increase in transmission rate, and doubling time for B.1.427/B.1.429 cases in California, related to STAR Methods.

Serial interval (days)	logistic growth rate per day	increase in transmission (%)	CI range	doubling time (days)	CI range (doubling time)	50% date	CI width (transmission rate)
3	0.0363	10.88	9.71-12.06	19.11	17.25-21.42	1/25/21	2.35
3.5	0.0363	12.7	11.33-14.06	19.11	17.25-21.42	1/25/21	2.73
4	0.0363	14.51	12.94-16.07	19.11	17.25-21.42	1/25/21	3.13
4.5	0.0363	16.32	14.56-18.08	19.11	17.25-21.42	1/25/21	3.52
5	0.0363	18.14	16.18-20.09	19.11	17.25-21.42	1/25/21	3.91
5.5	0.0363	19.95	17.80-22.10	19.11	17.25-21.42	1/25/21	4.31
6	0.0363	21.76	19.42-24.11	19.11	17.25-21.42	1/25/21	4.69
6.5	0.0363	23.58	21.03-26.12	19.11	17.25-21.42	1/25/21	5.09
7	0.0363	25.39	22-65-28.13	19.11	17.25-21.42	1/25/21	5.48

Abbreviations: CI, confidence interval.