

1 **SUPPLEMENTAL MATERIAL**

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3 **Supplemental Table 1.** Clinical characteristics of HIV-infected individuals.

	COVID-19 naïve	COVID-19 recovered	Statistics ^a
Number of individuals	24	24	-
Time on ART ^b (years)	9.0 (IQR: 6.0 - 15.0)	8.7 (IQR: 6.5 - 11.7)	n.s.
CD4 cells count ^b (cells/mm ³)	614.5 (IQR: 510.0 - 788.0)	539.0 (IQR: 435.0 - 666.0)	n.s.

4 ^a Statistical analysis: Mann-Whitney test. n.s.: not significant. ^b Values are expressed in median
5 and IQR (interquartile range).
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8 **Supplemental Table 2.** Neutralization titers against SARS-CoV-2 pseudotyped viruses in COVID-
9 19 recovered HIV infected individuals.
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Samples	NT50 HIV pseudoviruses		NT50 VSV pseudoviruses		Ratio of discordance ^a	ART containing integrase inhibitors
	HIV_SARS-CoV-2	HIV_VSV-G (Negative control)	VSV_SARS-CoV-2	VSV_VSV-G (Negative control)		
19	138	16	84	16	1,6	No
42	54	16	62	16	0,9	No
46	373	253	16	16	23,3	No
50	416	382	2237	16	0,2	No
52	52	16	34	16	1,5	No
54	3583	142	3737	16	1,0	No
63	553	739	16	16	34,6	No
64	604	181	289	16	2,1	No
65	3234	345	1865	16	1,7	No
79	47390	54299	11605	16	4,1	No
87	22734	454	28114	16	0,8	No
93	113	16	71	16	1,6	No
4	1920	1485	81	16	23,7	Yes
8	1829	678	295	16	6,2	Yes
25	3097	1534	1591	16	1,9	Yes
44	1357	673	327	16	4,1	Yes
49	3934	4524	16	16	245,9	Yes
60	1650	1407	16	16	103,1	Yes
61	1249	178	640	16	2,0	Yes
73	827	378	115	16	7,2	Yes
81	3301	3599	16	16	206,3	Yes
91	1477	820	86	16	17,2	Yes
94	659	528	16	16	41,2	Yes
1	7016	8069	258	16	27,2	N.A.

11 ^a Ratio of discordance among both pseudoviral systems (NT50 HIV_SARS-CoV-2: NT50 VSV_SARS-CoV-2).

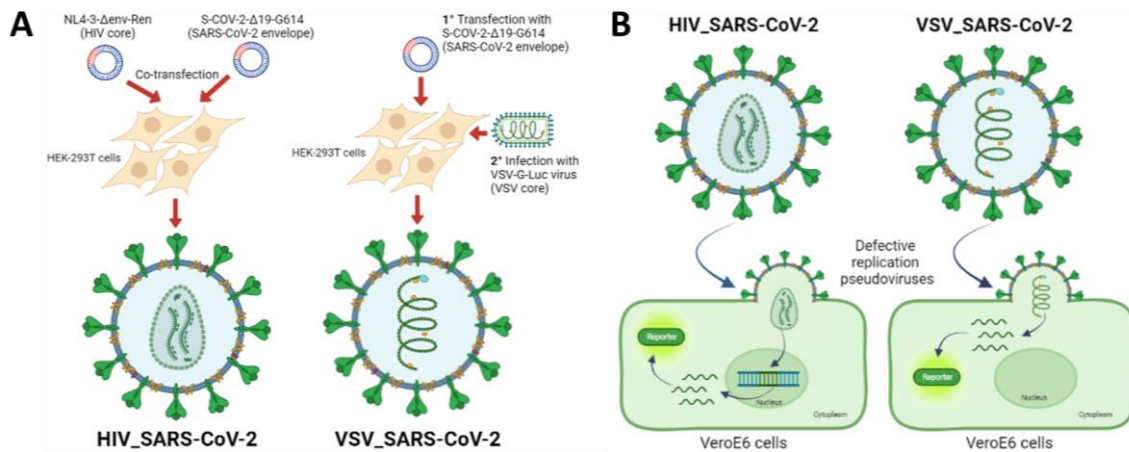
12 **Supplemental Table 3.** Neutralization titers against HIV-based SARS-CoV-2 pseudovirus in
 13 COVID-19 recovered HIV infected individuals after IgG purification.
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Samples	NT50 HIV pseudoviruses (after IgGs purification)		Ratio of discordance after IgG purification ^a	ART drugs ^b	ART containing integrase inhibitors
	HIV_SARS-CoV-2	HIV_VSV-G (Negative control)			
19	109,0	16,0	1,3	DRV/FTC/TAF	No
42	80,0	16,0	1,3	DRV/FTC/TAF	No
46	36,0	16,0	2,3	FTC/TAF /NVP	No
50	86,0	16,0	0,0	FTC/RPV/TAF	No
52	16,0	16,0	0,5	DRV/FTC/TAF	No
54	2114,0	16,0	0,6	FTC/RPV/TAF	No
63	34,0	16,0	2,1	FTC/RPV/TAF	No
64	178,0	16,0	0,6	FTC/RPV/TAF	No
65	1230,0	16,0	0,7	FTC/RPV/TAF	No
79	7161,0	124,6	0,6	ABC/3TC/EFV	No
87	14063,0	16,0	0,5	ABC/3TC/NVP	No
93	80,0	16,0	1,1	DRV	No
4	168,0	16,0	2,1	BIC/FTC/TAF	Yes
8	176,0	16,0	0,6	BIC/FTC/TAF	Yes
25	511,0	16,0	0,3	DRV-RTV/DTG/3TC/ENF	Yes
44	127,0	16,0	0,4	EVG/FTC/TAF	Yes
49	86,0	16,0	5,4	DTG/ABC/3TC	Yes
60	16,0	16,0	1,0	BIC/FTC/TAF	Yes
61	511,0	16,0	0,8	RLV/FTC/TAF	Yes
73	159,0	16,0	1,4	DTG/3TC.	Yes
81	16,0	16,0	1,0	BIC/FTC/TAF	Yes
91	47,0	16,0	0,5	EVG/FTC/TAF	Yes
94	16,0	16,0	1,0	DTG/ABC/3TC	Yes
1	180,0	16,0	0,7	-	N. A.

15 ^a Ratio of discordance among both pseudoviral systems (NT50 HIV_SARS-CoV-2: NT50 VSV_SARS-CoV-2).

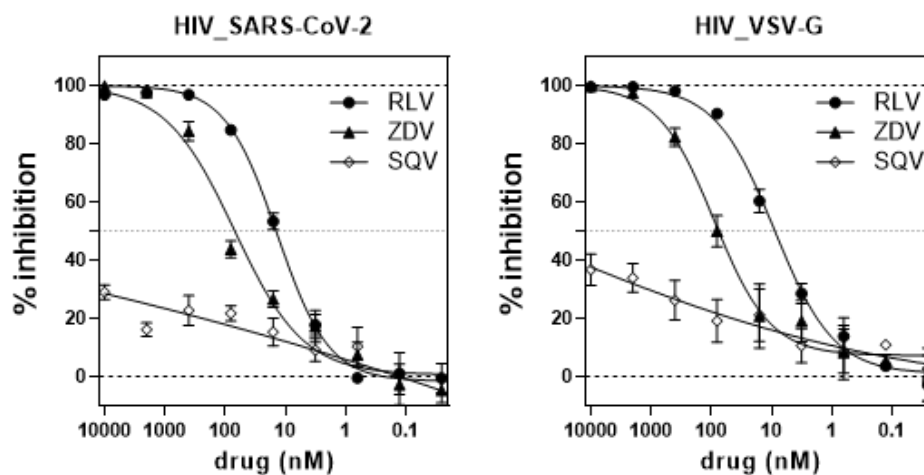
16 ^b 3TC: Lamivudine, ABC: Abacavir, BIC: Bictegravir, DRV: Darunavir, DTG: Dolutegravir, EFV: Efavirenz, ENF:
 17 Enfuvirtide, EVG: Elvitegravir, FTC: Emtricitabine, NVP: Nevirapine, RLV: Raltegravir, RPV: Rilpivirine, RTV:
 18 Ritonavir, TAF: Tenofovir alafenamide.

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Supplemental Figure 1. Diagram of SARS-CoV-2 pseudoviruses used in the study. A) Generation of HIV and VSV-based SARS-CoV-2 pseudoviruses. B) Cycle of HIV and VSV-based SARS-CoV-2 pseudoviruses in infected cells.



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Supplemental Figure 2. Phenotypic drug susceptibility profile for the HIV pseudoparticles to the indicated ART inhibitors. The dose response curves were obtained by plotting the percentage of inhibition of luciferase activity against the log₁₀ of drug concentration. RLV: Raltegravir (integrase inhibitor), ZDV: Zidovudine (nucleoside reverse transcriptase inhibitor), SQV: Saquinavir (protease inhibitor). The IC₅₀ was calculated by nonlinear regression curve helped by the GraphPad Prism software (9.3.1 version). **RLV**: IC₅₀= 13.9 nM for HIV_SARS-CoV-2 and IC₅₀=9.0 for HIV_VSV-G; **ZDV**: IC₅₀=70.2 for HIV_SARS-CoV-2 and IC₅₀=89.8 for HIV_VSV-G; **SQV**: IC₅₀ undetermined for HIV_SARS-CoV-2 and HIV_VSV-G. The bars indicate means ± SEM.

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Appendix: Hospital Clinic HIV investigators:

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