

**Table S1.** Correlation of  $C_T$  values and concentration of stool used in preliminary experiments performed with the Seegene Allplex™ SARS-CoV-2/FluA/FluB/RSV (SC2FABR) assay, spiking samples with serial 10-fold dilutions of SARS-CoV-2 viral inactivated lysates. Quantitative evaluations of SARS-CoV-2 viral load (TCID<sub>50</sub>/mL) have been also reported. Abbreviations: TCID, median tissue culture infectious dose; ExoIC, exogenous rRT-PCR control; EndoIC, endogenous rRT-PCR control; nd: not detected.

Dilution	Viral titre (TCID <sub>50</sub> /mL)	Stool conc. (mg/mL)	Allplex™SARS-CoV-2/FluA/FluB/RSV Assay									
			S	$C_T$	RdRP	$C_T$	N	$C_T$	EndoIC	$C_T$	ExoIC	
$10^{-1}$	$2 \times 10^5$	50	+	21.90	+	21.88	+	27.12	+	28.28	+	30.64
$10^{-2}$	$2 \times 10^4$		+	27.14	+	28.42	+	35.13	+	31.92	+	34.19
$10^{-3}$	$2 \times 10^3$		+	29.66	+	30.11	+	36.18	+	36.24	+	32.06
$10^{-4}$	$2 \times 10^2$		+	34.50	+	37.37	-	N/A	+	38.74	+	34.41
$10^{-5}$	$2 \times 10^1$		-	N/A	-	N/A	-	N/A	+	38.38	+	34.99
$10^{-6}$	2		-	N/A	-	N/A	-	N/A	+	33.36	+	36.46
$10^{-1}$	$2 \times 10^5$	20	+	19.05	+	19.53	+	22.06	+	30.25	+	28.91
$10^{-2}$	$2 \times 10^4$		+	22.08	+	22.71	+	25.94	+	33.77	+	28.79
$10^{-3}$	$2 \times 10^3$		+	25.91	+	28.01	+	32.47	+	36.79	+	30.29
$10^{-4}$	$2 \times 10^2$		+	29.03	+	29.66	+	33.10	+	37.31	+	29.07
$10^{-5}$	$2 \times 10^1$		+	33.14	+	34.14	+	35.03	-	nd	+	30.61
$10^{-6}$	2		-	N/A	-	N/A	-	N/A	+	37.40	+	31.07

**Table S2.** Overview of  $C_T$  values of control samples from rRT-PCR experiments performed with the Seegene Allplex™ SARS-CoV-2 (SC2) and SARS-CoV-2/FluA/FluB/RSV (SC2FABR) assays, using serial 10-fold spiked dilutions of SARS-CoV-2 viral inactivated lysates in stool samples and controls (ASL). Quantitative evaluations of SARS-CoV-2 viral load have been also reported. Abbreviations: cp, copies; CV, coefficient of variation; SD, standard deviation; TCID, median tissue culture infectious dose; ExoIC, exogenous rRT-PCR control; EndoIC, endogenous rRT-PCR control.

Dilution	Viral titre (TCID <sub>50</sub> /mL)	Allplex™ SARS-CoV-2					Allplex™SARS-CoV-2/FluA/FluB/RSV Assays								
		RNA cp/ $\mu$ L	RNA cp/mg	$C_T$ <sub>ExoIC</sub> (SD)	Percent positivity (n/N)	CV (%)	$C_T$ <sub>ASL</sub> (SD)	$C_T$ <sub>EndoIC</sub> (SD)	Percent positivity (n/N)	CV (%)	$C_T$ <sub>ASL</sub> (SD)	$C_T$ <sub>ExoIC</sub> (SD)	Percent positivity (n/N)	CV (%)	$C_T$ <sub>ASL</sub> (SD)
$10^{-1}$	$2 \times 10^5$	$1.03 \times 10^7$	$5.15 \times 10^8$	23.53 (1.45)	100 (30/30)	6.16	23.34 (1.96)	27.21 (0.98)	100 (30/30)	3.60	27.59 (0.70)	23.28 (0.82)	100 (30/30)	3.52	22.13 (0.95)
$10^{-2}$	$2 \times 10^4$	$1.06 \times 10^6$	$5.30 \times 10^7$	23.47 (1.58)	100 (30/30)	6.73	23.23 (2.01)	30.04 (0.99)	100 (30/30)	3.30	30.54 (0.64)	23.30 (0.97)	100 (30/30)	4.16	23.20 (0.76)
$10^{-3}$	$2 \times 10^3$	$9.71 \times 10^4$	$4.86 \times 10^6$	23.68 (1.51)	100 (30/30)	6.38	23.89 (2.00)	32.98 (1.13)	100 (30/30)	3.43	32.96 (1.25)	23.42 (1.02)	100 (30/30)	4.36	23.75 (1.31)
$10^{-4}$	$2 \times 10^2$	$9.97 \times 10^3$	$4.99 \times 10^5$	23.84 (1.31)	100 (30/30)	5.49	24.17 (1.76)	34.57 (1.43)	100 (30/30)	4.14	34.23 (1.97)	23.21 (0.91)	100 (30/30)	3.92	23.87 (1.32)
$10^{-5}$	$2 \times 10^1$	$9.27 \times 10^2$	$4.64 \times 10^4$	23.98 (1.49)	100 (30/30)	6.21	24.17 (1.82)	34.44 (1.52)	83.33 (25/30)	4.41	35.69 (3.33)	23.12 (0.74)	100 (30/30)	3.20	23.62 (0.90)
$10^{-6}$	2	$1.33 \times 10^2$	$6.65 \times 10^3$	24.01 (1.56)	100 (30/30)	6.50	24.26 (2.08)	34.71 (1.63)	86.66 (26/30)	4.70	34.19 (-*)	23.31 (0.80)	100 (30/30)	3.43	23.47 (0.75)