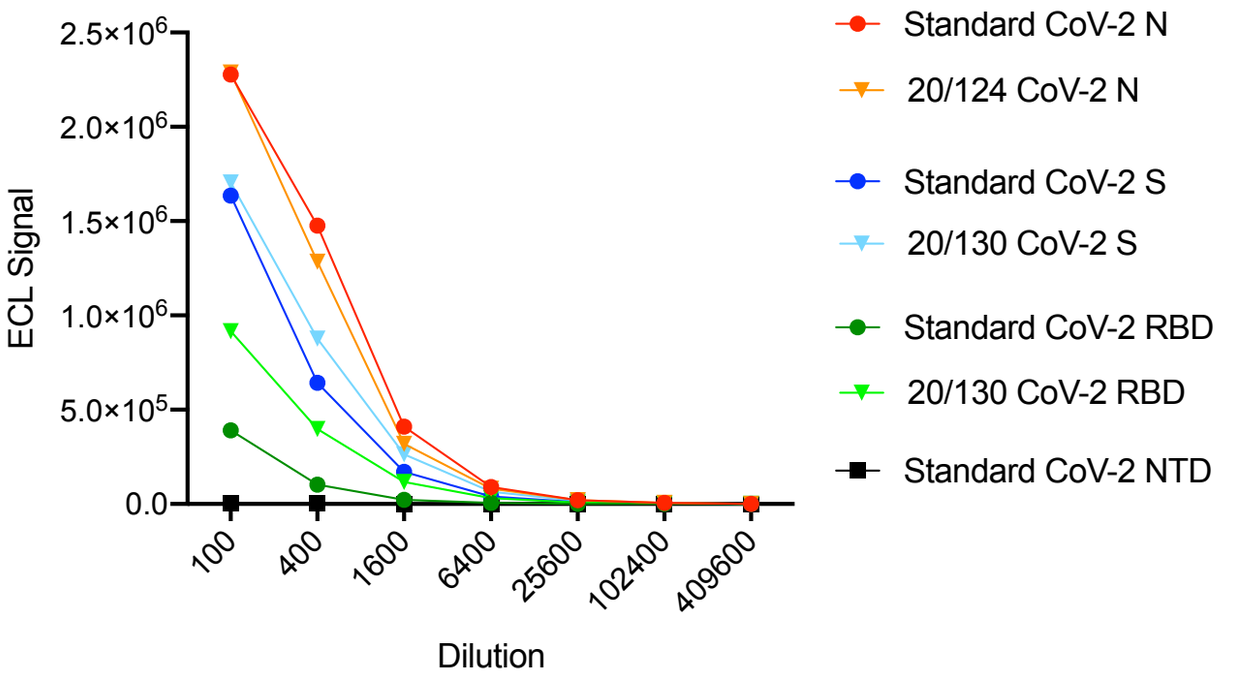
Antigen	Control serum	Average conc. (AU)	Average intra-assay %CV	Average inter-run %CV
CoV-2 S	1	2063.8	3.5%	1.5%
	2	2579.8	7.2%	1.8%
	3	<LLOD	NA	NA
	4	1282.3	5.7%	8.9%
CoV-2 RBD	1	1811.0	4.8%	2.1%
	2	2290.2	6.5%	2.2%
	3	144.7	8.3%	NA
	4	2301.3	3.4%	7.6%
CoV-2 N	1	3380.2	10.9%	0.4%
	2	5934.2	2.4%	6.3%
	3	<LLOD	6.9%	2.1%
	4	3557.3	7.5%	7.6%

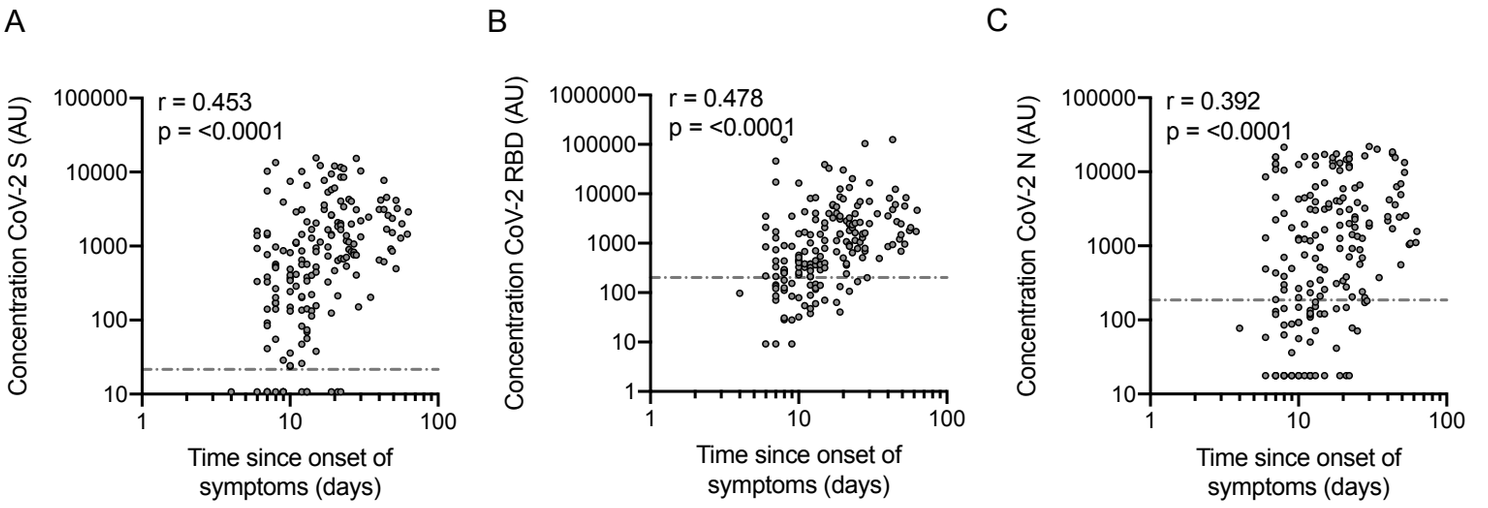
Supplementary Tables

Table S1: Intra and inter-assay variability. Within plate (intra) and between plate (inter) assay repeatability was assessed by running four samples (1-4) of varying antibody levels in four replicates on the same plate and across 4 different runs on different days



Supplementary Figure 1: Assignment of standard values to internal standard serum and standard curves for each antigen.

Graph shows ECL signal obtained from a serial dilution series (1 in 100, then 1 in 4 serial dilution) of standard serum and NIBSC control sera 20/130 and 10/124. NIBSC control serum 20/130 was used to assign values to standard serum for SARS-CoV-2 spike (S) and receptor binding domain (RBD) and NIBSC control serum 20/124 was used to assign a value to SARS-CoV-2 nucleocapsid (N). No endpoint titre corresponding to NTD antigen was available for standard serum assignment.



Supplementary Figure 2: Relationship with time since onset of symptoms. Graphs show the relationship between antibody concentration against against (a) spike (S), (b) receptor binding domain (RBD) and (c) nucleocapsid (N) for all samples with known and verified time since onset of symptoms to sampling (n=176). Correlation analysis was performed using Spearman correlation. P values of <0.05 were considered as significant.