

Supplementary Materials

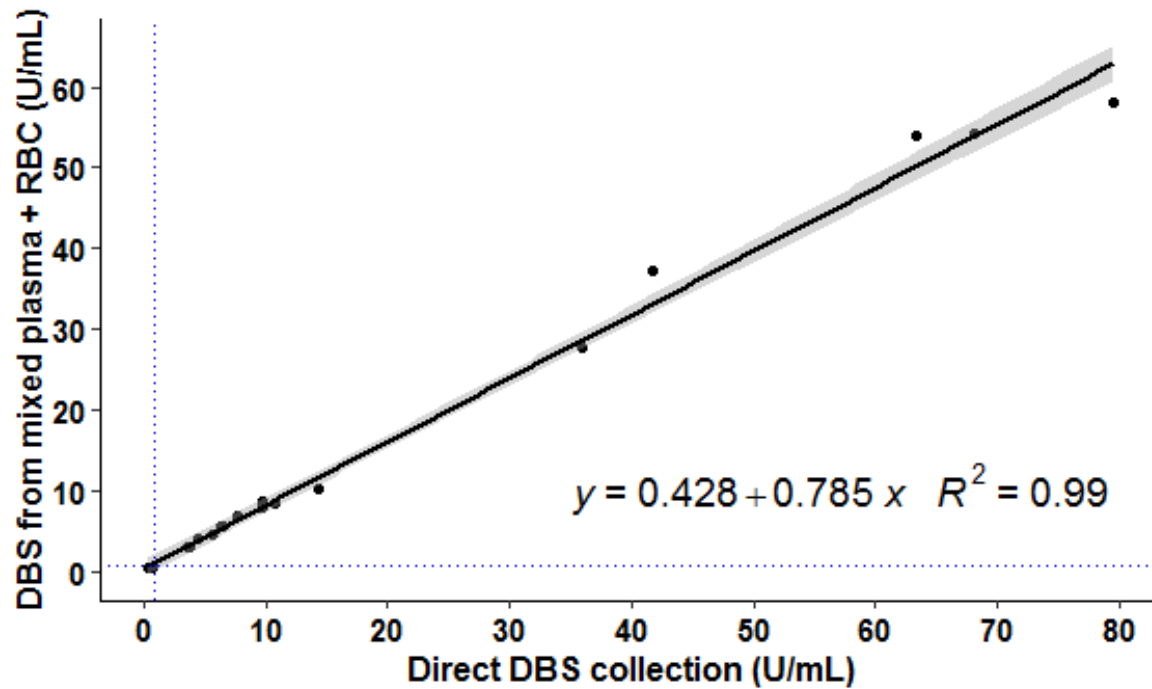


Figure S1. Comparison between Anti-S concentration obtained from DBS prepared from capillary blood (“Direct DBS collection”) and DBS prepared from RBC spiked with corresponding plasma (“DBS from mixed plasma + RBC”). Plasma and corresponding fingerprick capillary blood spotted onto filter paper were collected from COVID19 patients. (n=20 COVID19-positive). Horizontal line indicates plasma/serum-based cutoff as indicated by the manufacturer. All samples were run on Roche Elecsys Anti-SARS-CoV-2 (S) assay.

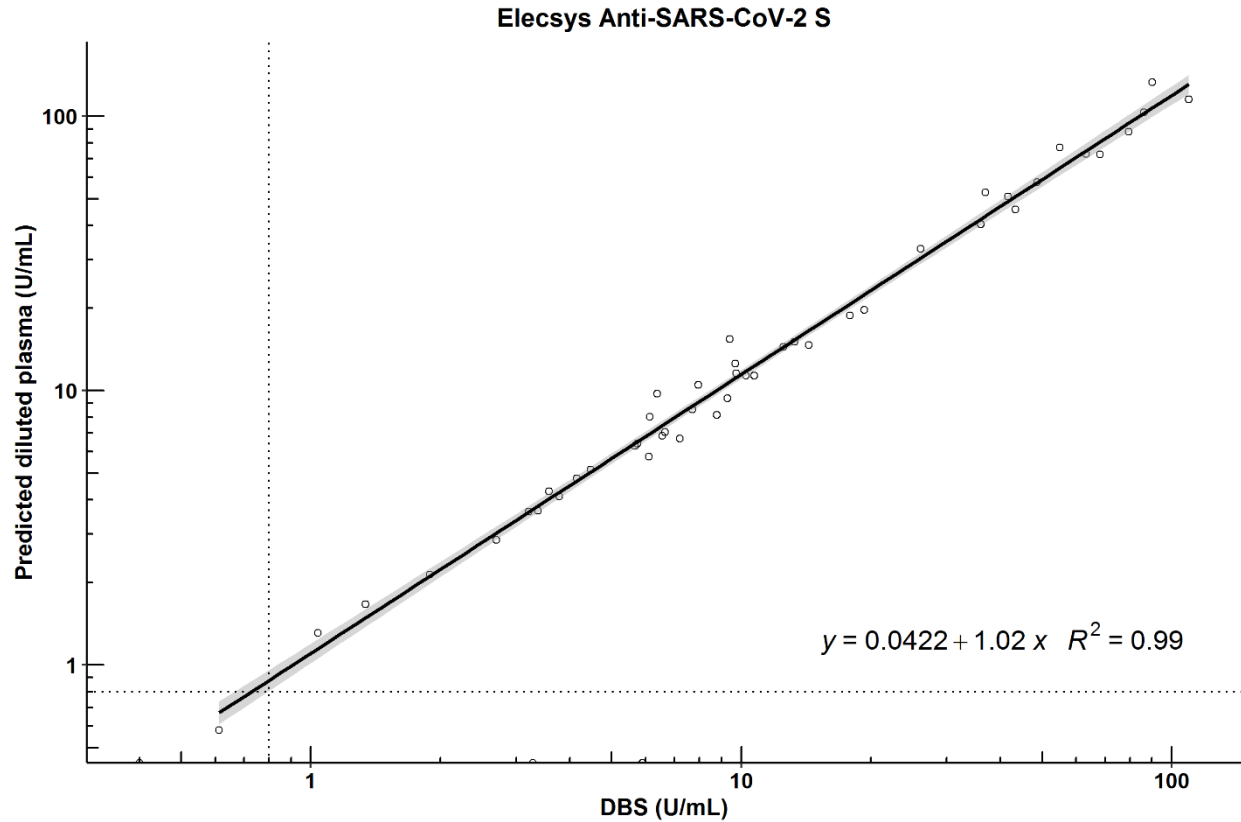


Figure S2. Correlation between antibody level measured in eluted DBS and predicted dilution of plasma. Predicted (x11) dilution of plasma antibody level using matched plasma/DBS collection sample set on Roche Elecsys Anti-SARS-CoV-2 assays (n=52 COVID19-positive, n=11 COVID19-negative). Horizontal line indicates plasma/serum-based cutoff as indicated by manufacturer.

Table S1. Patient samples selected for initial DBS validation.

| Random ID | PCR | Days since PCR-positive | SARS-CoV-2, Roche (S Total), Plasma (U/mL) |
|------------|------------------|-------------------------|--|
| Sample 9 | Positive | 27 | NA |
| Sample 2 | Positive | 15 | NA |
| Sample 5 | Positive | 39 | NA |
| Sample 7 | Positive | 12 | NA |
| Sample 8 | Positive | 5 | NA |
| Sample 3 | Positive | 6 | NA |
| Sample 1 | Positive | 17 | NA |
| Sample 10 | Positive | 21 | NA |
| Sample 6 | Positive | 16 | NA |
| Sample B12 | Positive | 33 | 18.14 |
| Sample B5 | Positive | 36 | 1028 |
| Sample B7 | Positive | 27 | 181.1 |
| Sample B15 | Positive | 18 | 11.58 |
| Sample B10 | Positive | 16 | 499.5 |
| Sample B9 | Positive | 35 | 2496 |
| Sample B2 | Positive | 33 | 241.2 |
| Sample B6 | Positive | 28 | 410.4 |
| Sample B3 | Positive | 10 | 0.417¹ |
| Sample B4 | Positive | 19 | 1509 |
| Sample B13 | Positive | 15 | 199.9 |
| Sample B14 | Positive | 15 | 643.4 |
| Sample B11 | Positive | 15 | 1.21 |
| Sample B8 | Positive | 14 | 222.6 |
| Sample B1 | Positive | 7 | 50.6 |
| Sample 4 | Negative | N/A | N/A |
| Sample C66 | Pre-covid sample | N/A | <0.4 |
| Sample C67 | Pre-covid sample | N/A | <0.4 |
| Sample C68 | Pre-covid sample | N/A | <0.4 |
| Sample C69 | Pre-covid sample | N/A | <0.4 |
| Sample C70 | Pre-covid sample | N/A | <0.4 |
| Sample C71 | Pre-covid sample | N/A | <0.4 |
| Sample C72 | Pre-covid sample | N/A | <0.4 |
| Sample C73 | Pre-covid sample | N/A | <0.4 |
| Sample C74 | Pre-covid sample | N/A | <0.4 |
| Sample C75 | Pre-covid sample | N/A | <0.4 |
| Sample C76 | Pre-covid sample | N/A | <0.4 |
| Sample C77 | Pre-covid sample | N/A | <0.4 |
| Sample C78 | Pre-covid sample | N/A | <0.4 |
| Sample C79 | Pre-covid sample | N/A | <0.4 |
| Sample C80 | Pre-covid sample | N/A | <0.4 |
| Sample C81 | Pre-covid sample | N/A | <0.4 |
| Sample C82 | Pre-covid sample | N/A | <0.4 |
| Sample C83 | Pre-covid sample | N/A | <0.4 |

| | | | |
|------------|------------------|-----|------|
| Sample C84 | Pre-covid sample | N/A | <0.4 |
| Sample C85 | Pre-covid sample | N/A | <0.4 |

¹Serology and PCR-positivity discordance.

Table S2. Patient samples selected for DBS SARS-CoV-2 serology validation using matched filter card/plasma collection, 90 days or more post-infection, and negative controls.

| RandomID | COVID19 Status | Days since PCR-positive | SARS-CoV-2, Roche (S Total), Plasma (U/mL) |
|------------|----------------|-------------------------|--|
| Sample C1 | PCR-confirmed | 157 | 847.3 |
| Sample C2 | PCR-confirmed | 151 | 52.69 |
| Sample C3 | PCR-confirmed | 152 | 70.5 |
| Sample C4 | PCR-confirmed | 141 | <0.4 |
| Sample C5 | PCR-confirmed | 139 | 23.51 |
| Sample C6 | PCR-confirmed | 149 | 14.42 |
| Sample C7 | PCR-confirmed | 145 | 579.8 |
| Sample C8 | PCR-confirmed | 145 | 1465 |
| Sample C9 | PCR-confirmed | 138 | <0.4 |
| Sample C10 | PCR-confirmed | 90 | <0.4 |
| Sample C11 | PCR-confirmed | 96 | <0.4 |
| Sample C12 | PCR-confirmed | 100 | 137.8 |
| Sample C13 | PCR-confirmed | 123 | 63.25 |
| Sample C14 | PCR-confirmed | 106 | 94.11 |
| Sample C15 | PCR-confirmed | 116 | 39.75 |
| Sample C16 | PCR-confirmed | 122 | 75.38 |
| Sample C17 | PCR-confirmed | 121 | 115.5 |
| Sample C18 | PCR-confirmed | 135 | 124.8 |
| Sample C19 | PCR-confirmed | 135 | 77.51 |
| Sample C20 | PCR-confirmed | 119 | 47.24 |
| Sample C21 | PCR-confirmed | 119 | 158.4 |
| Sample C22 | PCR-confirmed | 119 | 561.5 |
| Sample C23 | PCR-confirmed | 128 | 103 |
| Sample C24 | PCR-confirmed | 119 | 107.1 |
| Sample C25 | PCR-confirmed | 119 | 127.3 |
| Sample C26 | PCR-confirmed | 133 | 444.5 |
| Sample C27 | PCR-confirmed | 126 | 1136 |
| Sample C28 | PCR-confirmed | 152 | 56.8 |
| Sample C29 | PCR-confirmed | 131 | 31.38 |
| Sample C30 | PCR-confirmed | 130 | <0.4 |
| Sample C31 | PCR-confirmed | 129 | 40.15 |
| Sample C32 | PCR-confirmed | 132 | 801.8 |
| Sample C33 | PCR-confirmed | 133 | 216.3 |
| Sample C34 | PCR-confirmed | 137 | 965.5 |
| Sample C35 | PCR-confirmed | 139 | 360.9 |
| Sample C36 | PCR-confirmed | 144 | 161 |
| Sample C37 | PCR-confirmed | 147 | 501.9 |

| | | | |
|------------|---------------|-----|-------|
| Sample C38 | PCR-confirmed | 169 | 632.7 |
| Sample C39 | PCR-confirmed | 201 | 798.1 |
| Sample C40 | PCR-confirmed | 171 | 165.5 |
| Sample C41 | PCR-confirmed | 171 | 45.27 |
| Sample C42 | PCR-confirmed | 150 | 6.37 |
| Sample C43 | PCR-confirmed | 193 | 73.46 |
| Sample C44 | PCR-confirmed | 177 | 69.21 |
| Sample C45 | PCR-confirmed | 208 | 169.5 |
| Sample C46 | PCR-confirmed | 161 | <0.4 |
| Sample C47 | PCR-confirmed | 121 | 89.72 |
| Sample C48 | PCR-confirmed | 116 | 206.5 |
| Sample C49 | PCR-confirmed | 124 | 124.5 |
| Sample C50 | PCR-confirmed | 104 | 1268 |
| Sample C51 | PCR-confirmed | 103 | 18.28 |
| Sample C52 | PCR-confirmed | 101 | 88.42 |
| Sample C55 | Negative | NA | <0.4 |
| Sample C56 | Negative | NA | <0.4 |
| Sample C57 | Negative | NA | <0.4 |
| Sample C58 | Negative | NA | <0.4 |
| Sample C59 | Negative | NA | <0.4 |
| Sample C60 | Negative | NA | <0.4 |
| Sample C61 | Negative | NA | <0.4 |
| Sample C62 | Negative | NA | <0.4 |
| Sample C63 | Negative | NA | <0.4 |
| Sample C64 | Negative | NA | <0.4 |
| Sample C65 | Negative | NA | <0.4 |