**Supplemental Table 1:** EP-15 (5 day imprecision data) generated using Abbott QC material

| Target (N/A) range (N/A-44.5 AU/mL) | Positive 1 Target (154.6 AU/mL) range (92.8-201.0 AU/mL) | Positive 2 Target (766.0 AU/mL) range (459.6-995.8 AU/mL) |
|------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| Mean 3.4 AU/mL                     | Mean 162.9 AU/mL                                         | Mean 604.2 AU/mL                                         |
| %CV                               | %CV                                                      | %CV                                                      |
| SD                                | SD                                                       | SD                                                       |
| Total                             | Total                                                    | Total                                                    |
| 20.5                               | 3.0                                                     | 3.3                                                      |
| 0.7                                | 4.9                                                     | 19.7                                                     |
**Supplemental Table 2:** Expected, measured and % difference values for the assessment of linearity of the Abbott IgG II assay using a range of dilutions of a high positive (mean 38,365 AU/mL) in the Abbott diluent.

| Expected Values (AU/mL) | Measured Values (AU/mL) | % Difference |
|-------------------------|-------------------------|--------------|
| 38365                   | 38365                   | 0            |
| 34877                   | 35343                   | 1            |
| 31389                   | 30392                   | -3           |
| 27902                   | 28553                   | 2            |
| 13951                   | 14810                   | 6            |
| 6975                    | 7646                    | 10           |
| 3488                    | 3770                    | 8            |
| 1744                    | 1795                    | 3            |
| 872                     | 926                     | 6            |
| 436                     | 422                     | -3           |
| 327                     | 326                     | 0            |
| 218                     | 223                     | 2            |
| 163                     | 164                     | 1            |
| 109                     | 122                     | 12           |
| 82                      | 90                      | 10           |
| 68                      | 74                      | 9            |
| 41                      | 50                      | 23           |
| 34                      | 40                      | 19           |
| 27                      | 32                      | 18           |
**Supplemental Table 3**: Results obtained on the Abbott SARS-CoV-2 IgG II quantitative method for the 37 samples of the NIBSC ‘verification panel’. Samples were measured in duplicate.

| Panel Number | Result replicate 1 (AU/mL) | Result replicate 2 (AU/mL) | Average (AU/mL) | Positive or Negative |
|--------------|----------------------------|----------------------------|-----------------|----------------------|
| 1            | 211.0                      | 209.1                      | 210.1           | P                    |
| 2            | 348.4                      | 339.6                      | 344.0           | P                    |
| 3            | 8707.3                     | 8559.6                     | 8633.5          | P                    |
| 4            | 6260.3                     | 6384.1                     | 6322.2          | P                    |
| 5            | 9710.5                     | 9708.5                     | 9709.5          | P                    |
| 6            | 4225.2                     | 3974.8                     | 4100.0          | P                    |
| 7            | 2304.3                     | 2147.7                     | 2226.0          | P                    |
| 8            | 4428.8                     | 4011.8                     | 4220.3          | P                    |
| 9            | 6429.8                     | 6383.6                     | 6406.7          | P                    |
| 10           | 6674.9                     | 7115.1                     | 6895.0          | P                    |
| 11           | 1172.3                     | 1186.2                     | 1179.3          | P                    |
| 12           | 1167.6                     | 1127.9                     | 1147.8          | P                    |
| 13           | 1395.3                     | 1382.3                     | 1388.8          | P                    |
| 14           | 961.6                      | 999.0                      | 980.3           | P                    |
| 15           | 1590.9                     | 1685.6                     | 1638.3          | P                    |
| 16           | 787.6                      | 747.4                      | 767.5           | P                    |
| 17           | 2617.7                     | 2541.6                     | 2579.7          | P                    |
| 18           | 6062.8                     | 6065.6                     | 6064.2          | P                    |
| 19           | 2329.8                     | 2355.0                     | 2342.4          | P                    |
| 20           | 1920.4                     | 1954.4                     | 1937.4          | P                    |
| 21           | 3111.3                     | 3117.9                     | 3114.6          | P                    |
| 22           | 3517.7                     | 3447.6                     | 3482.7          | P                    |
| 23           | 2290.0                     | 2314.6                     | 2302.3          | P                    |
| 24           | 4.0                        | 2.0                        | 3.0             | N                    |
| 25           | 4.7                        | 4.2                        | 4.5             | N                    |
| 26           | 1.9                        | 3.8                        | 2.9             | N                    |
| 27           | 3.4                        | 2.4                        | 2.9             | N                    |
| 28           | 0.8                        | 1.0                        | 0.9             | N                    |
| 29           | 2.0                        | 1.3                        | 1.7             | N                    |
| 30           | 5.6                        | 3.2                        | 4.4             | N                    |
| 31           | 1.6                        | 1.3                        | 1.5             | N                    |
| 32           | 0.7                        | 3.0                        | 1.9             | N                    |
| 33           | 0.6                        | 3.1                        | 1.9             | N                    |
| 34           | 1.6                        | 1.5                        | 1.6             | N                    |
| 35           | 0.9                        | 0.4                        | 0.7             | N                    |
| 36           | 2.3                        | 2.3                        | 2.3             | N                    |
| 37           | 5.1                        | 0.6                        | 2.9             | N                    |
**Supplemental Table 4:** Expected, measured and % difference values for the assessment of linearity of the Abbott IgG II assay using a range of dilutions of the NIBSC 20/162 working standard in the Abbott diluent.

| Expected Values (AU/mL) | Measured Values (AU/mL) | % Difference |
|-------------------------|-------------------------|--------------|
| 14072.4                 | 14072.4                 | 0            |
| 1279.3                  | 1220.8                  | -4.56        |
| 639.6                   | 580.3                   | -9.3         |
| 319.8                   | 288.8                   | -9.7         |
| 80.0                    | 74.8                    | -6.5         |
| 40.0                    | 38.1                    | -4.7         |
| 20.0                    | 18.5                    | -7.6         |
| 4.0                     | 3.3                     | -17.7        |
Supplemental Figure 1: Comparison of concordance of different methods using the NIBSC 37 sample verification panel. Graph shows the results of the positive samples from the verification panel from NIBSC for (A) spike protein-based Abbott Quantitative and DiaSorin (AU/mL) assays and (B) nucleocapsid-based Abbott qualitative and EDI assays (index, R). Original data were normalised as a ratio to the highest value for each assay and ordered from the lowest to the highest values obtained in the Abbott quantitative assay.
