**Supplementary Figure legends**

**Figure S1. The comparison of antibody titers between the control and HD groups**

**(only for subjects who participated in all blood tests)**

At 6 months after the primary series, blood was drawn from 297 subjects (control, n = 103; HD group, n = 194); however, 29 subjects withdrew from the study 3 months after the booster dose. Blood was drawn from 258 subjects (control, n = 82; HD group, n = 176) 3 months after the booster dose. Considering the selection bias, Figure S2 shows the subjects who completed the blood withdrawal up to 3 months after the booster dose. (a) Six months after the primary series, (b) 3 weeks after the booster dose, and (c) 3 months after the booster dose. No significant difference was observed between the two groups 6 months after the primary series; however, antibody titers 3 weeks and 3 months after the booster dose were significantly higher in the HD group than in the control group (p = 0.0065 and p = 0.0002, respectively). The rate of change was significantly greater in the HD group from 6 months after the primary series to 3 weeks after the booster dose than in the control group (p = 0.0004) (d) and significantly lower in the HD group from 3 weeks after the booster dose to 3 months after the booster dose than in the control group (p < 0.0001) (e).

\*p ≤ 0.05, \*\*p ≤ 0.01, \*\*\*p ≤ 0.001, \*\*\*\*p ≤ 0.0001

C, control; HD, hemodialysis

2-6 M; 6months after the primary series, 3-3 W; 3 weeks after the booster dose, 3-3 M; 3 months after the booster dose

**Figure S2. Comparison of antibody titers between the control and HD groups**

**(for those T-SPOT COVID was measured)**

For subjects whose T-SPOT COVID was measured, the SARS-CoV-2 IgG levels were compared between the control and HD groups. There was no significant difference between the two groups 6 months after the primary series; however, at 3 weeks and 3 months after the booster dose, the HD group had significantly higher antibody titers than the control group (p = 0.04 and p = 0.02, respectively). This was consistent with the overall results.

C; control, HD; hemodialysis

2-6 M; 6months after the primary series, 3-3 W; 3 weeks after the booster dose, 3-3 M; 3 months after the booster dose