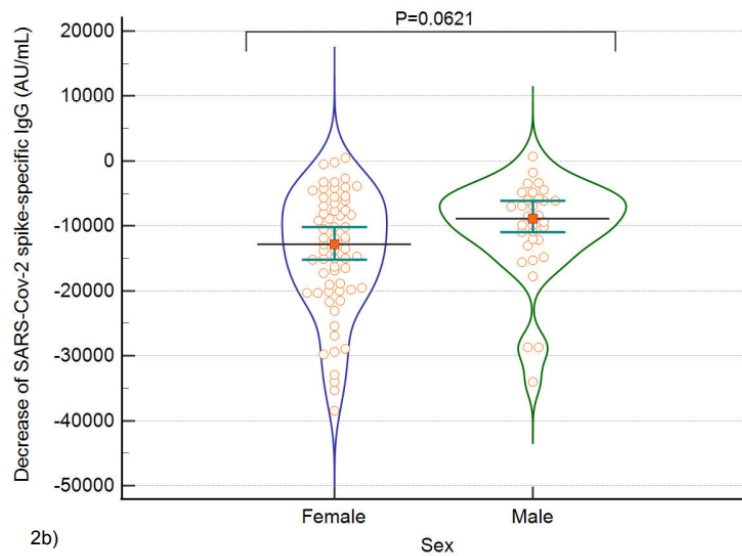
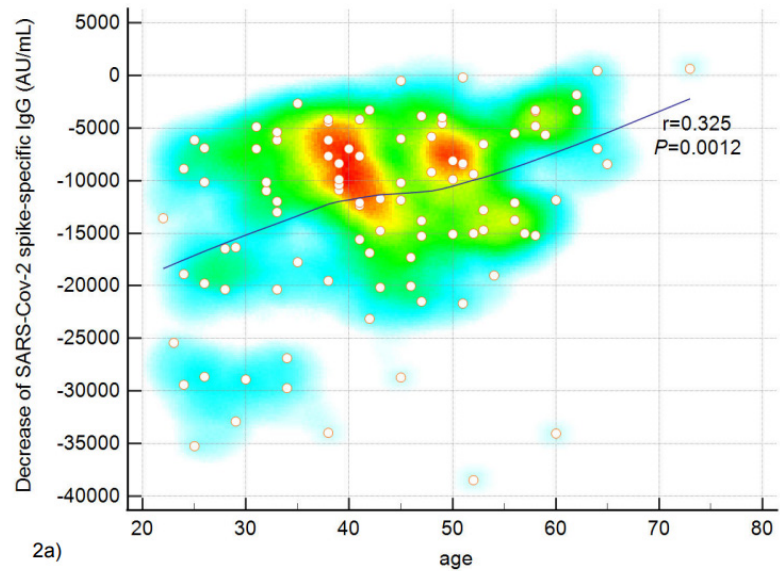
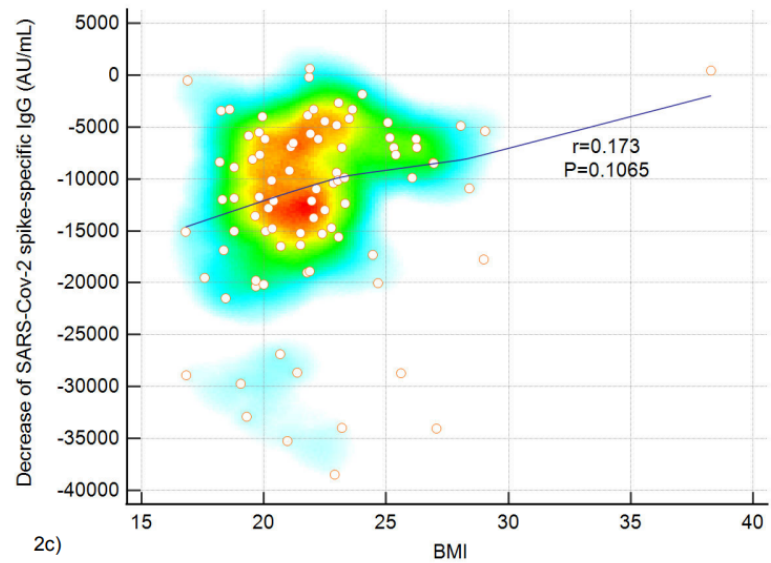


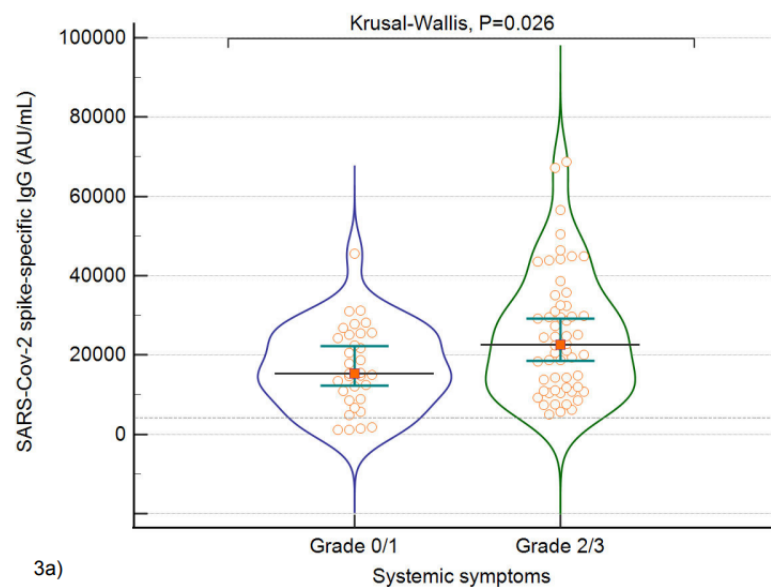
**Supplementary Figure S1.** SARS-CoV-2 spike-specific IgG production on day 29, stratified by age and sex (a) SARS-CoV-2 spike-specific IgG production on day 29, stratified by 5 age groups: 20–29 years old (y.o.), 30–39 y.o., 40–49 y.o. 50–59 y.o. and over 60 y.o. (b) SARS-CoV-2 spike-specific IgG

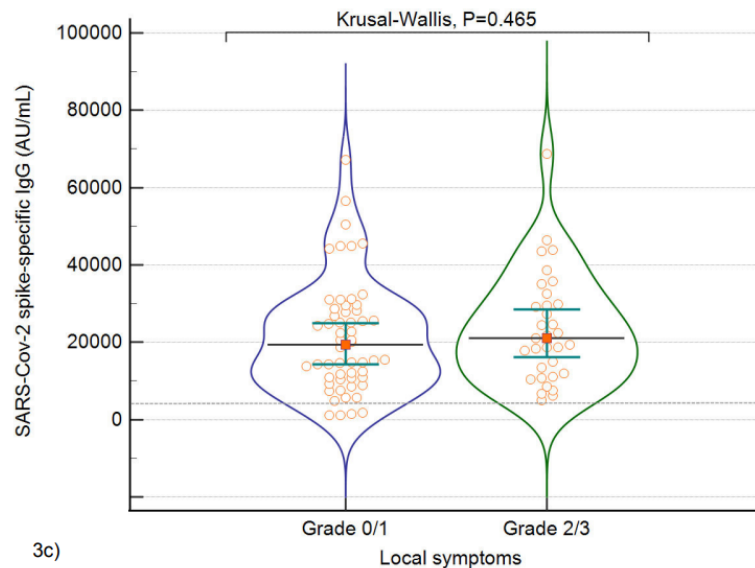
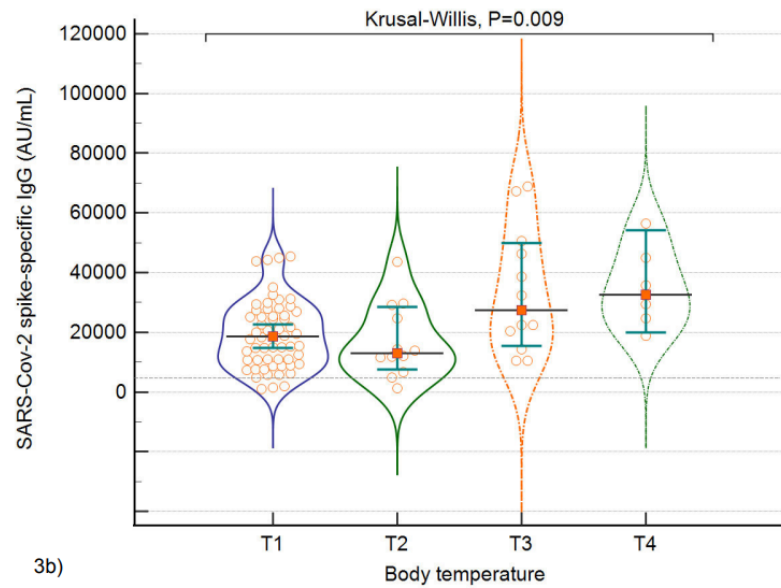
production on day 29, stratified by sex. (c) SARS-CoV-2 spike-specific IgG production on day 29, stratified by 10 groups including the categories listed in (a) and (b) Violin plots showing median and 95% confidence interval (CI), grey dotted line indicates IgG-S level of 4160 AU/mL, which corresponded to a 95% probability of obtaining a PRNT ID50 (estimated number of virus particles required to produce infection in 50% of normal adult humans) at 1:250 dilution .





**Supplementary Figure S2.** SARS-CoV-2 spike-specific IgG decline on day 61, stratified by age, sex, and BMI of participants (a) Scatter plot showing the correlation between age and the change in IgG-S between day 29 and day 61. Correlation coefficients and P-values are calculated. Color intensity of the heatmap indicates the accumulation of data points in a specific area. (b) Violin plot showing the correlation between sex and the change in IgG-S between day 29 and day 61. Violin plots showing median and 95% confidence interval (CI), grey dotted line indicates IgG-S level of 4160 AU/mL, which corresponded to a 95% probability of obtaining a PRNT ID50 (estimated number of virus particles required to produce infection in 50% of normal adult humans) at 1:250 dilution (c) Scatter plot showing the correlation between the BMI of participants and the change in IgG-S between day 29 and day 61. Correlation coefficients and p-values are calculated. Color intensity of the heatmap indicates the accumulation of data points in a specific area.





**Supplementary Figure S3.** Association between SARS-CoV-2 spike-specific IgG production on day 29 and adverse reactions after two doses of BNT162b2 vaccination (a) Violin plot showing the distribution of IgG-S production on day 29 stratified by grades of systemic symptoms experienced by participants after two doses of BNT162b2 vaccination (b) Violin plot showing the distribution of IgG-S production on day 29 stratified by fever experienced by participants after two doses of BNT162b2 vaccination. T1: < 37.5°C; T2: 37.5–37.9 °C; T3: 38.0–38.4 °C; and T4: 38.5–38.9 °C. (c) Violin plot showing the distribution of IgG-S production on day 29 stratified by the grade of local symptoms experienced by participants after two doses of BNT162b2 vaccination Violin plots showing median and 95% confidence interval (CI), grey dotted line indicates IgG-S level of 4160 AU/mL, which corresponded to a 95% probability of obtaining a PRNT ID50 (estimated number of virus particles required to produce infection in 50% of normal adult humans) at 1:250 dilution