

Additional file 3

Total protein concentration in cervical and oral samples across study visits. Boxplots represent total protein concentrations (mg/mL) in cervical (left) and oral (right) samples before vaccination (visit 1) and after one dose (visit 2), two doses (visit 3), and three doses (visit 4); colored in gray, coral, orange and blue, respectively (n=39). Violin plots depict the distribution and density of values for each visit, with boxplots indicating median and interquartile range (IQR). Statistical comparisons between visits are indicated by brackets above the plots (NS, not significant). In cervical samples, the mean total protein concentration was 0.55 (95% CI: 0.39–0.71), 0.40 (95% CI: 0.31–0.50), 0.46 (95% CI: 0.34–0.58), and 0.35 (95% CI: 0.25–0.45), for visits 1 – 4, respectively. Corresponding values in oral samples were 0.36 (95% CI: 0.27–0.44), 0.38 (95% CI: 0.31–0.45), 0.41 (95% CI: 0.33–0.49), and 0.36 (95% CI: 0.27–0.45), for visits 1 – 4, respectively. Pairwise comparisons were performed using the Games–Howell test, with no statistically significant differences in total protein concentration across visits in either cervical ($p > 0.168$) or oral samples ($p > 0.739$).

