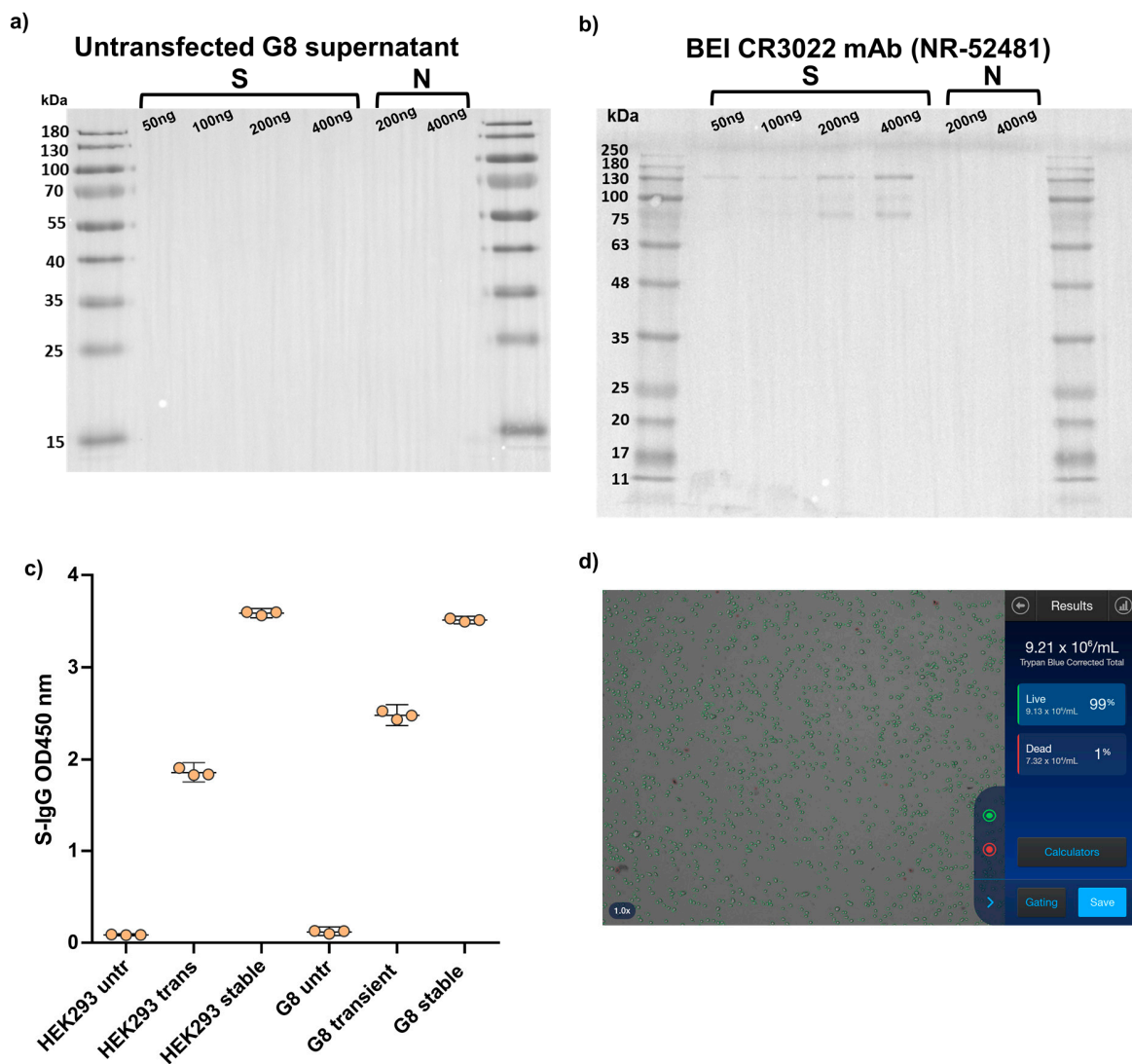


# Supplementary Materials: Sustained SARS-CoV-2 monoclonal antibody delivery by encapsulated cells: A proof-of-concept study

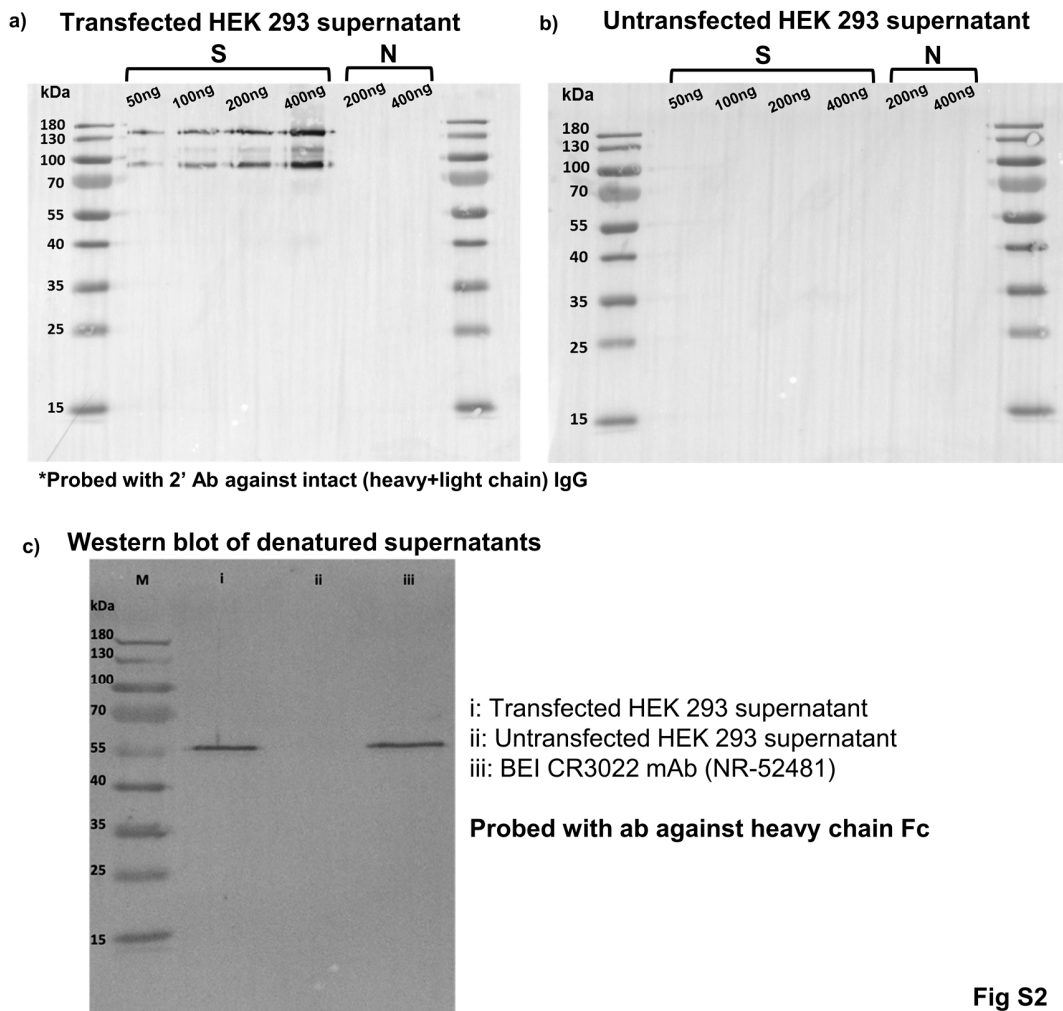
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Supplementary Materials:



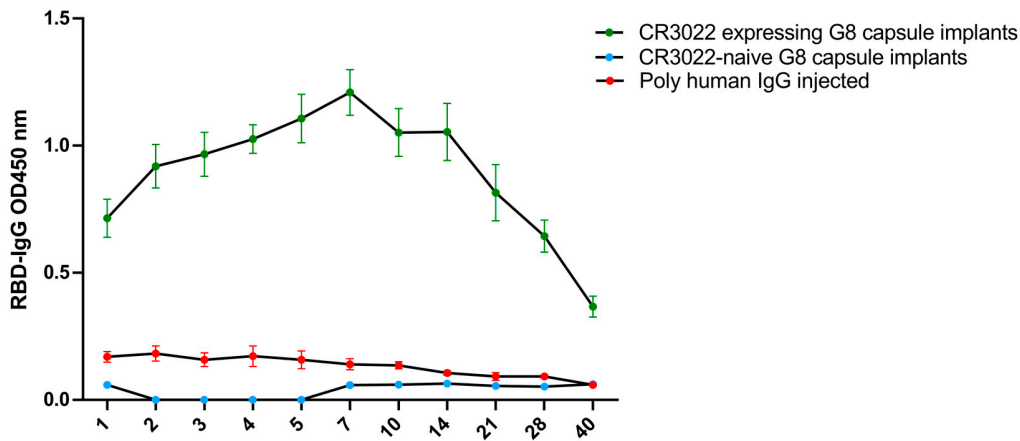
**Figure S1.** SARS-CoV-2 antibody detection by Western blotting and ELISA. a,b) Western blotting of supernatants from control (un-transfected) G-8 cells (a) and diluted

BEI CR3022 mAb (b); different amounts of S (50-400 ng) and nucleocapsid (N, 200-400 ng) proteins were separated on a 10% SDS-PAGE gel, transferred onto a PVDF membrane and then blotted with G-8 cell culture supernatant; probing in a, b was done using a HRP-conjugated rabbit IgG specific to both the heavy and light chains of human IgG. Lanes M: protein ladder; Lanes S: S protein at 50, 100, 200 and 400 ng. Lanes N: N protein at 200 and 400 ng. c) Representative ELISA plot of S-IgG binding for HEK293 and G-8 cell supernatants. Cell supernatants were incubated on plates coated with S and RBD proteins. Supernatants were collected at 48h post-encapsulation. Lines and brackets represent the geometric means and 95% confidence intervals, respectively. OD, optic density. d) Representative output from the automated cell counter showing the count and viability of cells retrieved from microcapsules.

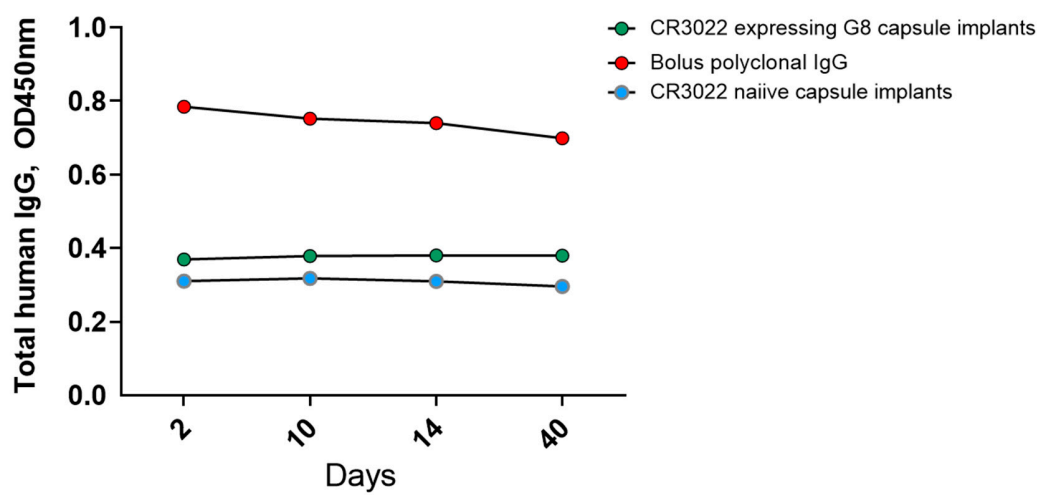


**Fig S2**

**Figure S2.** SARS-CoV-2 monoclonal antibody production in cells transfected with the CR3022 heavy and light chains. In panels a,b different amounts of S (50-400 ng) and nucleocapsid (N, 200-400 ng) proteins were separated on a 10% SDS-PAGE gel, transferred onto a PVDF membrane and then blotted with HEK-293 cell culture supernatant; probing was done using a HRP-conjugated rabbit IgG specific to both the heavy and light chains of human IgG. Lanes M: protein ladder; Lanes S: S protein at 50, 100, 200 and 400 ng. Lanes N: N protein at 200 and 400 ng. In panel c, purified cell culture supernatants and the BEI CR3022 mAb were denatured prior to Western blotting; probing was done using a HRP-conjugated goat IgG specific to the heavy chain Fc region of human IgG. kDA=kilodaltons.



**Figure S3.** SARS-CoV-2 monoclonal antibody detection in mice over 40 days of implantation.



**Figure S4.** Total human IgG detection in mice over 40 days of implantation.