Supplementary Materials for

Nanocell COVID-19 vaccine elicits iNKT-licensed dendritic cells to produce high affinity antibodies neutralizing Variants of Concern

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**Table S1.** An example of plasmid copy number analysis of a batch of EDV-COVID-αGC.

|  |  |
| --- | --- |
| **ELISA Antibodies** |  |
| Mouse TNFα | DuoSet R&D Systems  | DY41005 |
| Mouse IFNαall subtype | Verikine-HS PBL  | 42115 |
| Mouse IFNγ | DuoSet R&D Systems  | DY48505 |
| Mouse IL12/p40  | DuoSet R&D Systems  | DY239805 |
| Mouse IL4  | DuoSet R&D Systems  | DY40405 |
| Mouse IL10  | DuoSet R&D Systems  | DY41705 |
| Mouse IL6 | DuoSet R&D Systems | DY40605 |
| Mouse IL2 | DuoSet R&D Systems | DY402 |
| Mouse IL21 | LEGEND MAX Mouse IL-21 ELISA Kit (Biolegend) | 446107 |

**Table S2.** ELISA kits used for cytokine analysis.

|  |  |  |  |
| --- | --- | --- | --- |
| **Marker** | **Antibody** | **Quantity****µg/500µl/1x106 cells** | **Manufacturer** |
| CD45 | Anti-mouse CD45-AF488 | 1.5 µg | Biolegend 103122 |
| CD4 | Anti-mouse CD4 [GK1.5] (PE-Texas Red®) | 0.15 µg  | Abcam ab51467 |
| OX40 | Anti-mouse CD134 (OX-40)-APC | 0.3 µg | Biolegend 119413 |
| CD3 | Anti-mouse CD3-PE-Cy7 | 0.75 µg | Biolegend 100220 |
| CD8 | Anti-human/mouse CD8-AF647 | 0.75 µg | Biolegend 372906 |
| CD69 | Anti-mouse CD69-BV421 | 0.075 µg | Biolegend 104527 |
| 7-AAD | Viability Staining Solution | 4 µl | Biolegend 420404 |

**Table S3.** T cell staining panel.



**Fig. S1.** SARS-CoV-2 spike protein quantification using ELISA.



**Fig. S2.** LC-MS αGCquantitation standard curve and area under the peak for EDV-COVID-αGC extracted particles.



 **Fig. S3.** Examples of the gating strategy used for FACS (A) in mouse studies, (B) in human volunteers.