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**S4 Fig. Subcutaneous and intramuscular BNT162b vaccination resulted on upregulated inflammatory and immune genes.**

**(A)** Principle-component analysis (PCA) of inflammatory and immune gene expression following vaccination with PBS or BNT162b via the subcutaneous (SC) or intramuscular (IM) route.

**(B)** Volcano plots of SC versus IM BNT162b vaccinated gene fold changes (x-axis) and  $\log_{10}$ p value (y-axis).

77 **(C-F)** Inflammatory pathway genes TNF $\alpha$  (C), IL6 (D), MAP2K1 (E) and NOS2 (F) normalized  
78 to their respective PBS controls expressed in whole blood of s.c. and i.m. BNT162b vaccinated  
79 K18-hACE2 animals.

80 **(G-J)** Complement pathway genes C1RA (G), C2 (H), C7 (I) and CFD (J) normalized to their  
81 respective PBS controls expressed in whole blood of s.c. and i.m. BNT162b vaccinated K18-  
82 hACE2 animals.

83 **(K-N)** Interferon pathway genes IFN $\alpha$  (K), TLR7 (L), IRF7 (M) and IFIT1 (N) normalized to  
84 their respective PBS controls expressed in whole blood of s.c. and i.m. BNT162b vaccinated  
85 K18-hACE2 animals.

86 *Data presented as means  $\pm$  SD. Unpaired student's T test were used for experiments*  
87 *comparing 2 groups. \*P < 0.05, \*\*P < 0.01, \*\*\*\*P < 0.0001*

88 Data underlying this Figure can be found in S2\_Data.

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