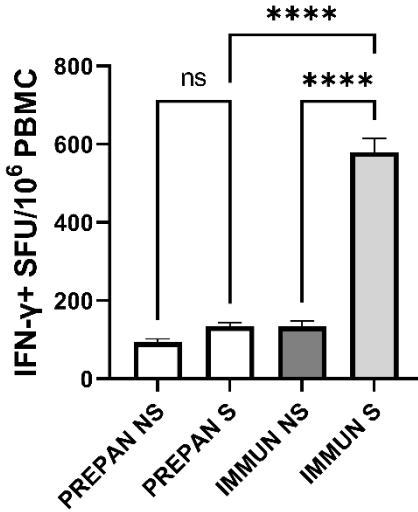
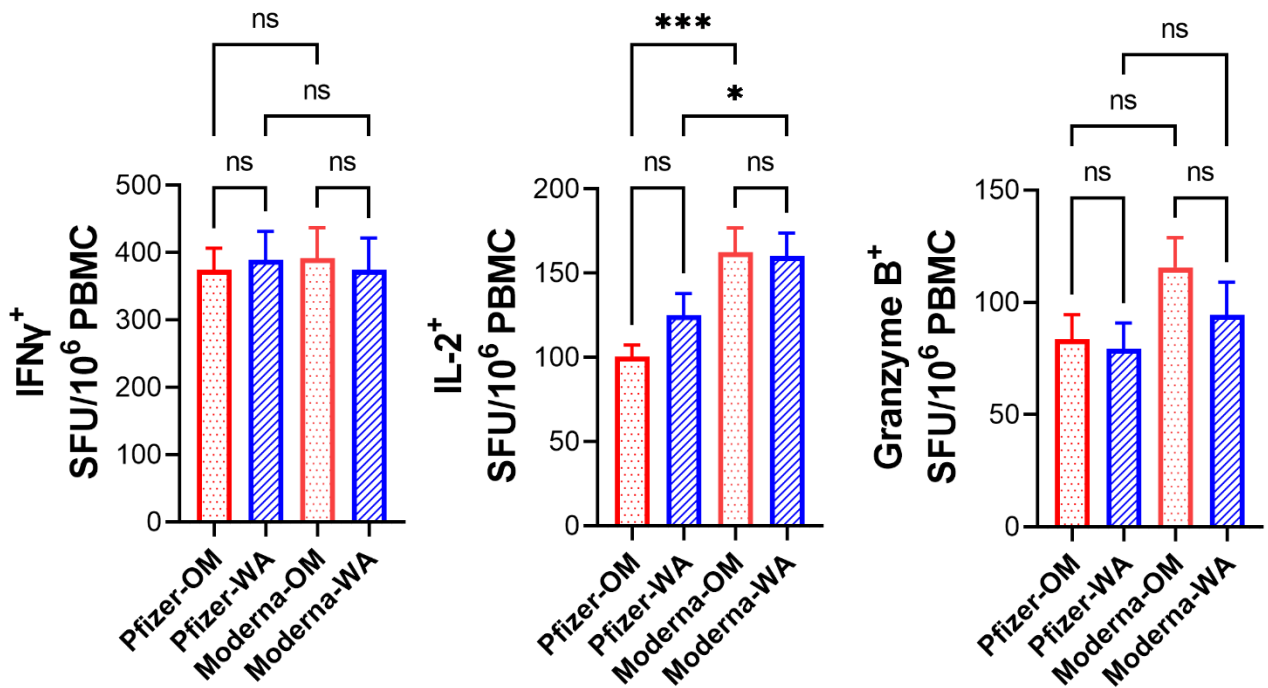


	Pre-pandemic CTRLS	SARS-CoV-2 PI	PI + VAX	2X VAX	3X VAX
Total number of subjects	32	54	39	210	24
Gender (n)					
Male	11	26	18	67	7
Female	21	28	21	143	17
Age, (mean ± SD)	51.5 ± 24.4	50.8 ± 13.05	49.46 ± 12.97	50.4 ± 11.7	56.8 ± 21.5
Vaccine Manufacturer (n)					
Pfizer	NA	NA	20	128	12
Moderna	NA	NA	19	82	11
Days post VAX (mean ± SD)	NA	NA	125.0 ± 80.4	170.2 ± 75.8	33.3 ± 24.7
Days post COVID onset (mean ± SD)	NA	189.9 ± 107.3	289.8 ± 108.7	NA	NA

Supplemental Table 1. Demographics of study participants. NA – not applicable.

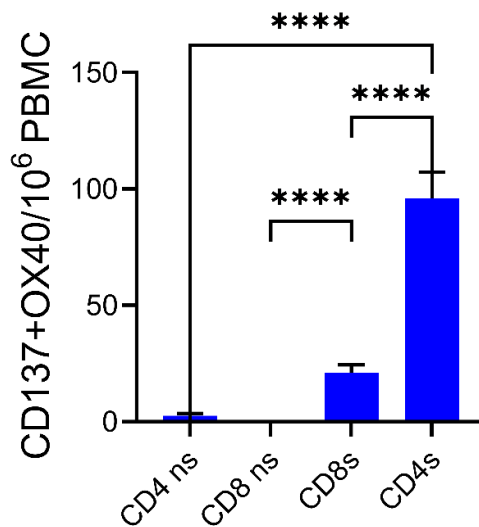


Supplemental Figure 1. 10⁶ PBMCs per well were cultured without peptide stimulation (NS) or stimulated with Spike peptide pools from USA-WA1/2020 for 42h, IFN- γ response was measured by FLUORISpot. Prepandemic samples N=32, immunized samples N=326. Data presented as mean \pm standard error of the mean. Kruskal-Wallis test with Dunn's correction for multiple comparisons.



Supplemental Figure 2. Reduced IL-2 responses in recipients of Pfizer mRNA

SARS-Cov-2 vaccines No difference in number of IFN- γ SFU between recipients of Pfizer and Moderna manufactured mRNA vaccines (left panel). IL-2 SFU were reduced in recipients of Pfizer's mRNA vaccines in response to both USA-WA1/2020 and Omicron peptide pool (middle panel). No difference in number of GrB SFU between groups (right panel). Pfizer n=139, Moderna n=93. Data presented as mean \pm standard error of the mean. Kruskal-Wallis's test with Dunn's correction for multiple comparisons



Supplemental Figure 3. Spike peptide pool induces expression of CD137 and OX-40 on CD3+CD4+ or CD3+CD8+ cells, n=96. Data presented as mean \pm standard error of the mean. Kruskal-Wallis test with Dunn's correction for multiple comparisons.