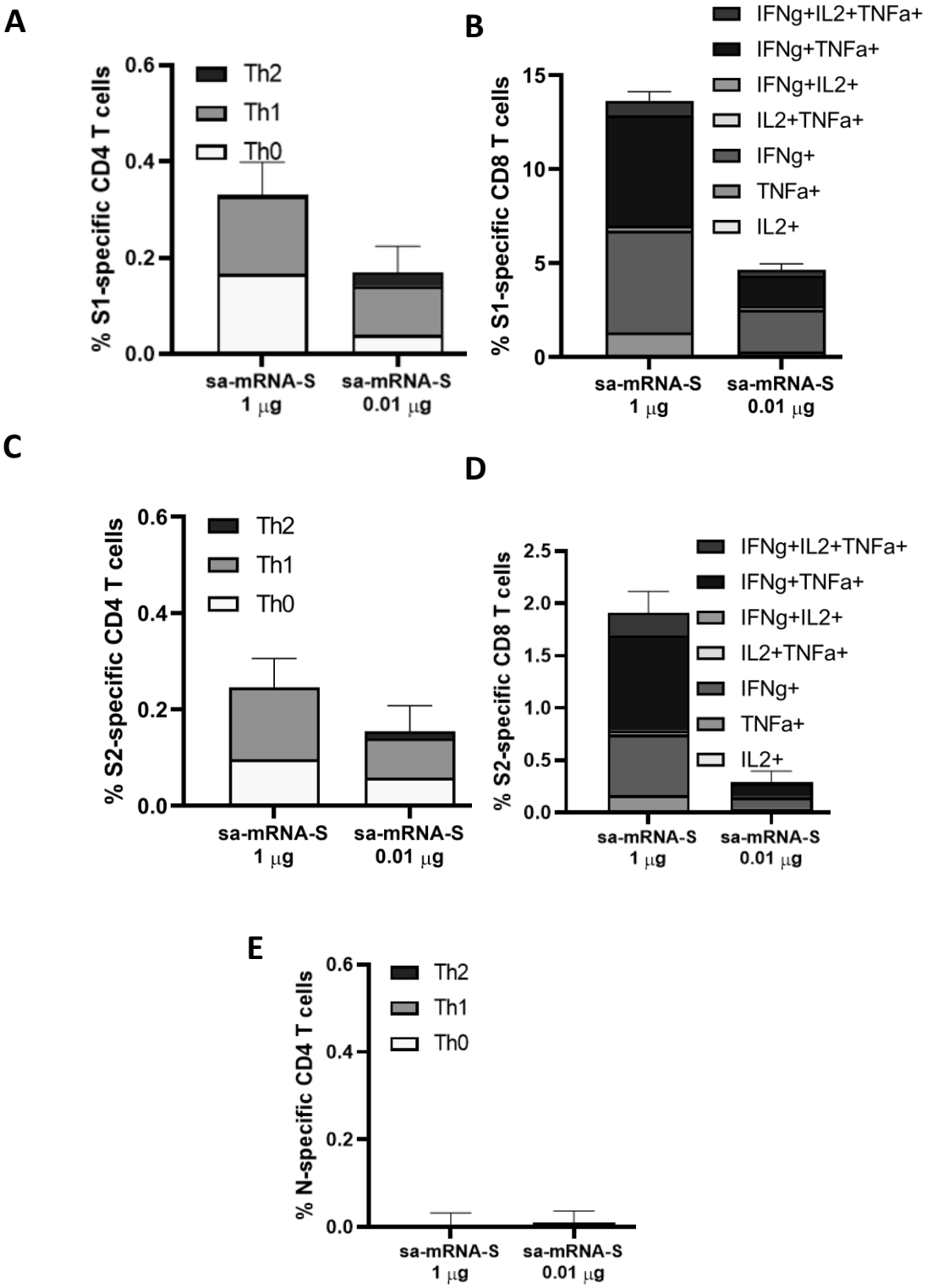
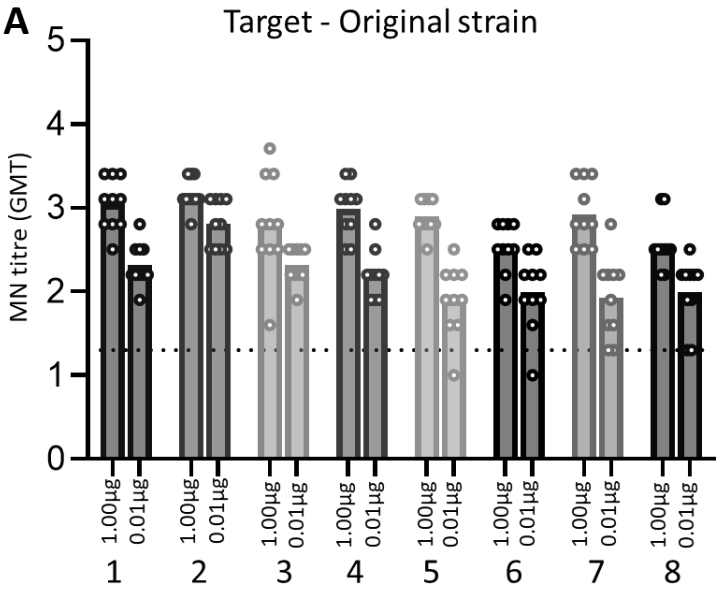
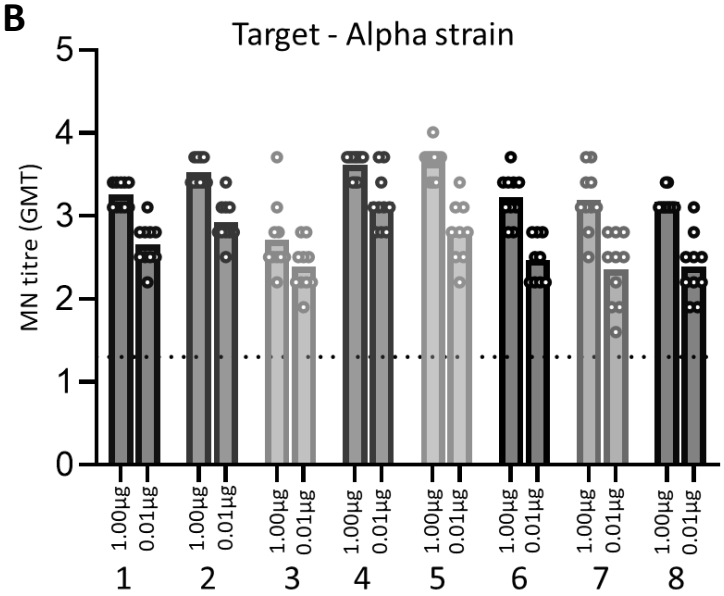

A
% S1-specific CD4 T cells
0.6
0.4
0.2
0.0
Th2
Th1
Th0
sa-mRNA-S 1 μg
sa-mRNA-S 0.01 μg
B
% S1-specific CD8 T cells
15
10
5
0
IFNg+IL2+TNFa+
IFNg+TNFa+
IFNg+IL2+
IL2+TNFa+
IFNg+
TNFa+
IL2+
sa-mRNA-S 1 μg
sa-mRNA-S 0.01 μg
C
% S2-specific CD4 T cells
0.6
0.4
0.2
0.0
Th2
Th1
Th0
sa-mRNA-S 1 μg
sa-mRNA-S 0.01 μg
D
% S2-specific CD8 T cells
2.5
2.0
1.5
1.0
0.5
0.0
IFNg+IL2+TNFa+
IFNg+TNFa+
IFNg+IL2+
IL2+TNFa+
IFNg+
TNFa+
IL2+
sa-mRNA-S 1 μg
sa-mRNA-S 0.01 μg
E
% N-specific CD4 T cells
0.6
0.4
0.2
0.0
Th2
Th1
Th0
sa-mRNA-S 1 μg
sa-mRNA-S 0.01 μg

FIGURE 1

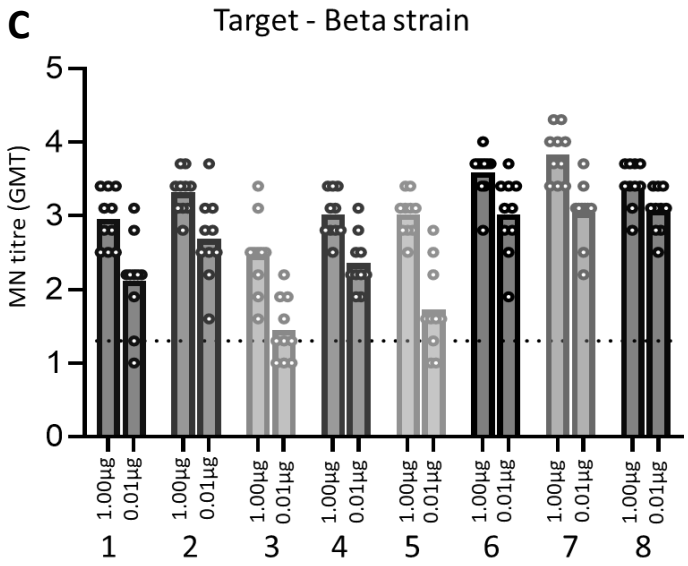


		1.00µg	0.01µg
1	Co16	1114	211
2	Co49	1470	640
3	Co59	640	211
4	Co77	970	160
5	Co80	788	80
6	Co78	343	98
7	Co81	844	86
8	Co79	368	98

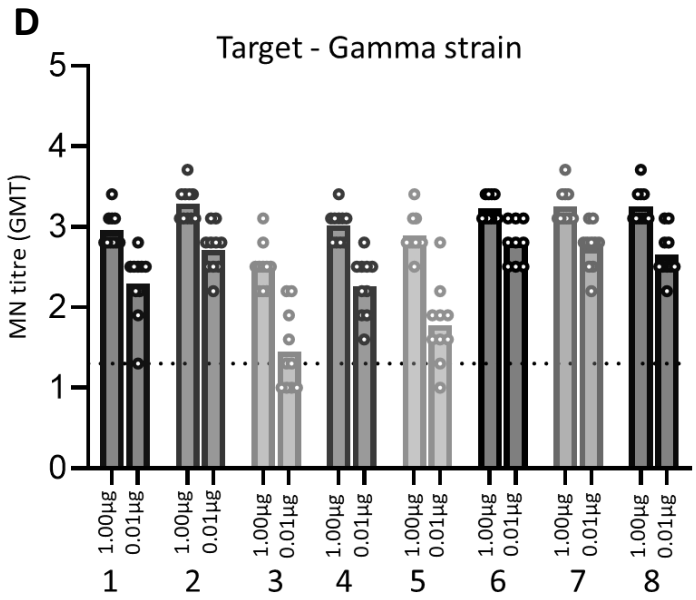


		1.00µg	0.01µg
1	Co16	1810	453
2	Co49	3378	844
3	Co59	520	243
4	Co77	4159	1470
5	Co80	4457	640
6	Co78	1689	296
7	Co81	1576	226
8	Co79	1470	243

FIGURE 2



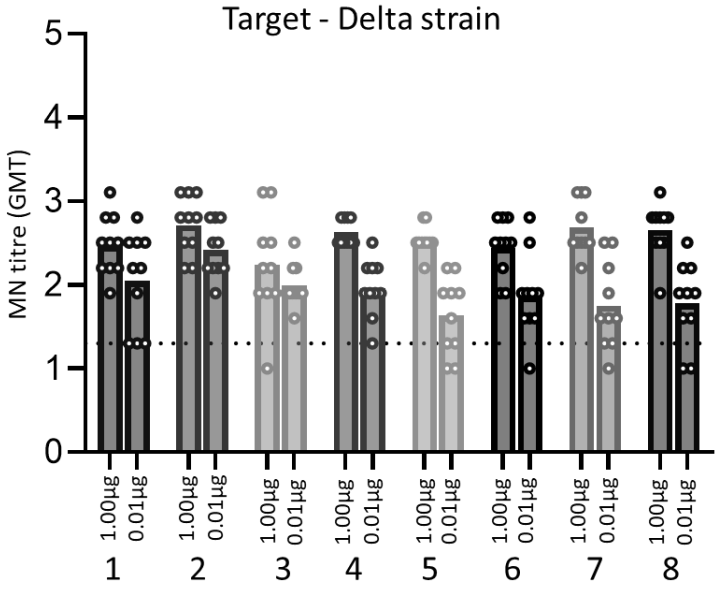
		1.00µg	0.01µg
1	Co16	905	130
2	Co49	2079	485
3	Co59	299	28
4	Co77	1040	226
5	Co80	1040	53
6	Co78	3880	1040
7	Co81	6756	1114
8	Co79	2744	1194



		1.00µg	0.01µg
1	Co16	905	197
2	Co49	1940	520
3	Co59	320	28
4	Co77	1040	184
5	Co80	788	61
6	Co78	1689	640
7	Co81	1810	557
8	Co79	1810	453

FIGURE 2 (CONTINUED)

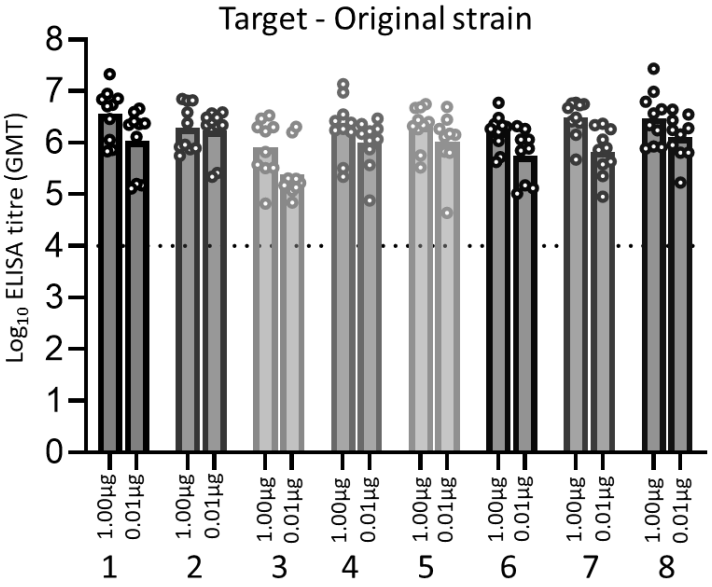
E



		1.00µg	0.01µg
1	Co16	299	113
2	Co49	520	260
3	Co59	171	98
4	Co77	422	92
5	Co80	343	43
6	Co78	279	75
7	Co81	485	57
8	Co79	453	61

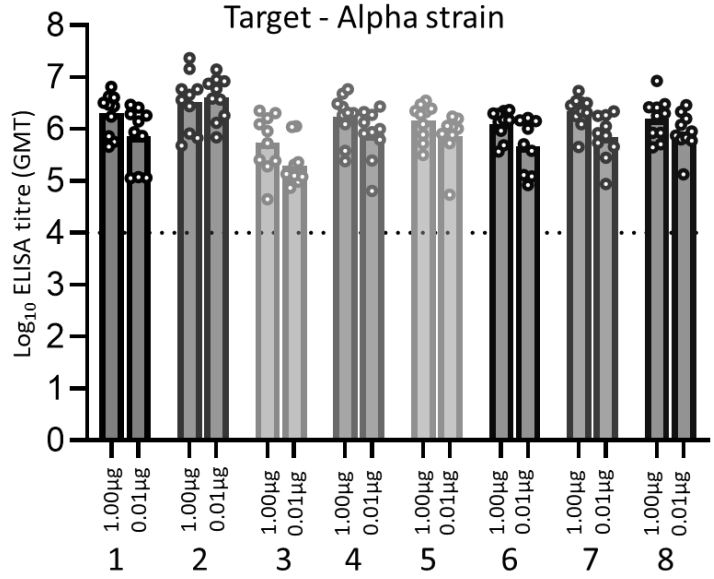
FIGURE 2 (CONTINUED)

A



		1.00µg	0.01µg
1	Co16	3668743	1088990
2	Co49	1939577	1705504
3	Co59	811934	241344
4	Co77	2019080	988281
5	Co80	2076966	1040888
6	Co78	1642213	565529
7	Co81	3036968	681105
8	Co79	2993884	1296553

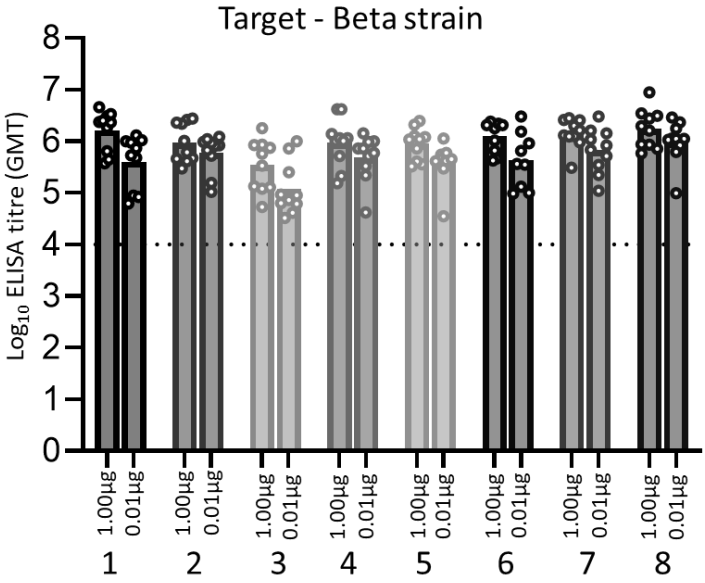
B



		1.00µg	0.01µg
1	Co16	1998291	723486
2	Co49	3281792	4055460
3	Co59	548520	201837
4	Co77	1709269	801718
5	Co80	1446403	742448
6	Co78	1274848	461048
7	Co81	2198583	712347
8	Co79	1596785	885408

FIGURE 3

C



		1.00µg	0.01µg
1	Co16	1637495	403928
2	Co49	954828	590175
3	Co59	342160	120055
4	Co77	948851	486066
5	Co80	897106	374401
6	Co78	1269953	427621
7	Co81	1442314	677469
8	Co79	1754354	998683

FIGURE 3 (CONTINUED)

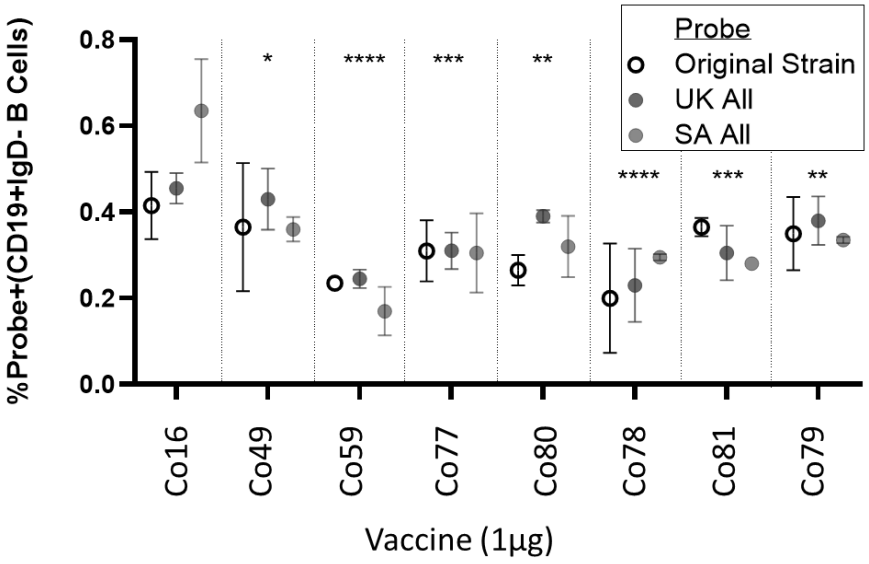
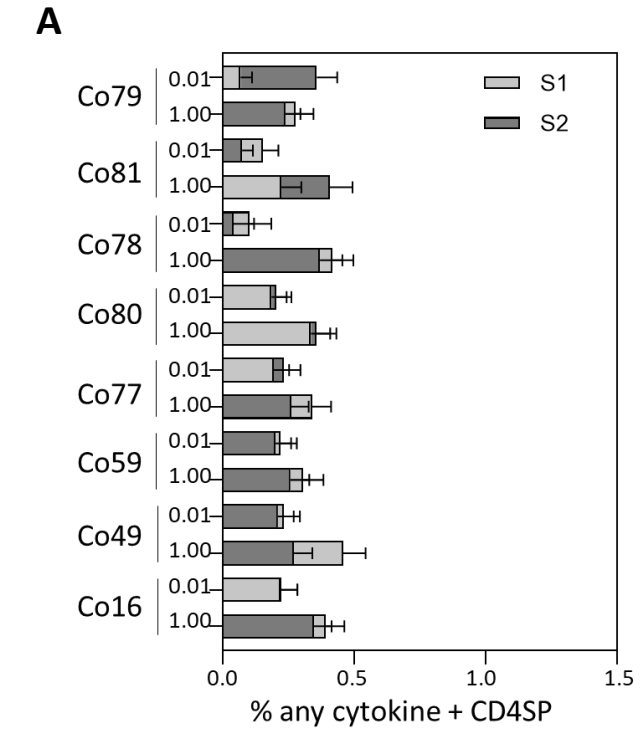

%Probe+(CD19+IgD- B Cells)
0.8
0.6
0.4
0.2
0.0
*
****
***
**
****
***
**
Probe
Original Strain
UK All
SA All
Co16
Co49
Co59
Co77
Co80
Co78
Co81
Co79
Vaccine (1µg)

FIGURE 4


A
Co79
Co81
Co78
Co80
Co77
Co59
Co49
Co16
0.01
1.00
S1
S2
0.0
0.5
1.0
1.5
% any cytokine + CD4SP

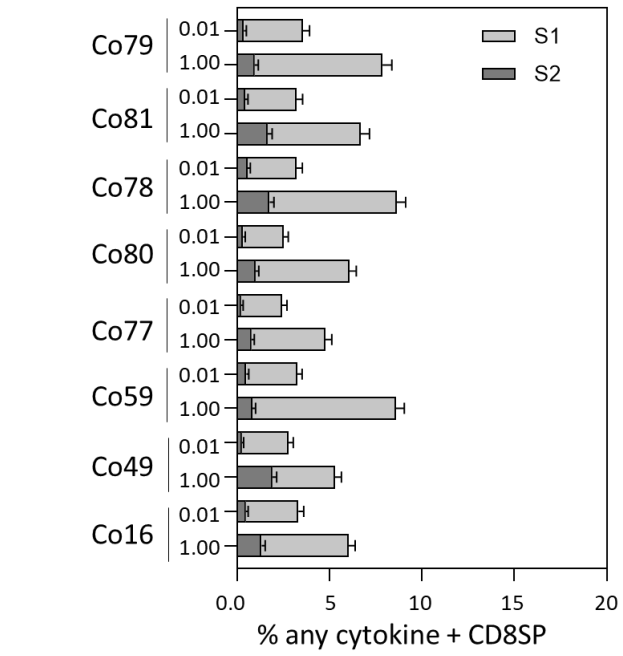

B
Co79
Co81
Co78
Co80
Co77
Co59
Co49
Co16
0.01
1.00
S1
S2
0.0
5
10
15
20
% any cytokine + CD8SP

FIGURE 5