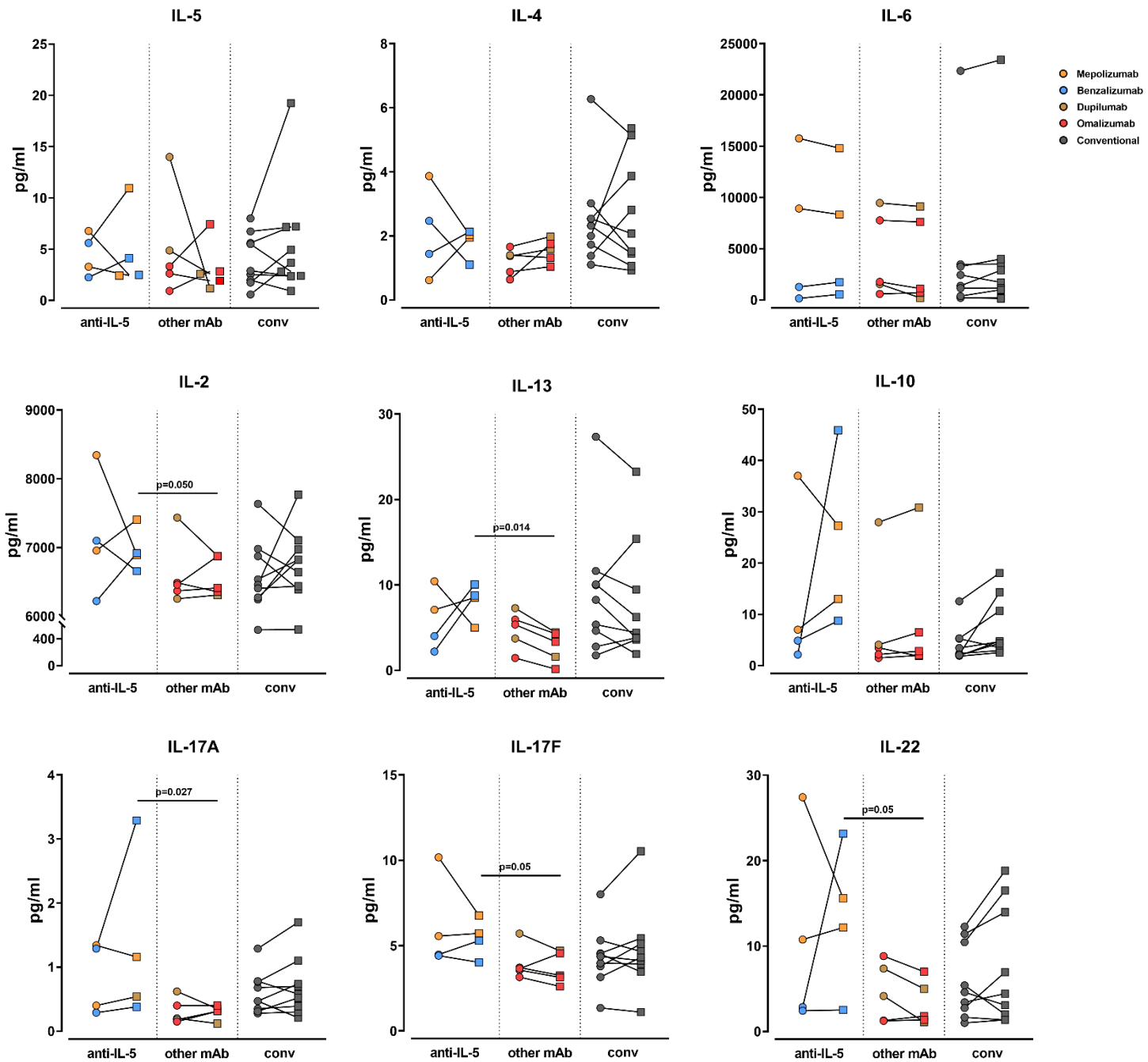


Supplementary Figure 1. Cytokine concentrations in serum from asthma patients.

Cytokines (IL-4, IL-2, IL-6, IL-13, IL-10, IL-17A, IL-17F, IL-22) concentrations (pg/mL) to each participant were measured using a bead cytokine assay (LegendPlex™) in anti-IL-5 (mepolizumab/benralizumab), other mAb (dupilumab/omalizumab), and conventional therapy (conv) treated asthma patients. Data are presented as median ± interquartile range.

Supplementary Figure 2. Cytokine concentrations in nasal swabs from asthma patients.

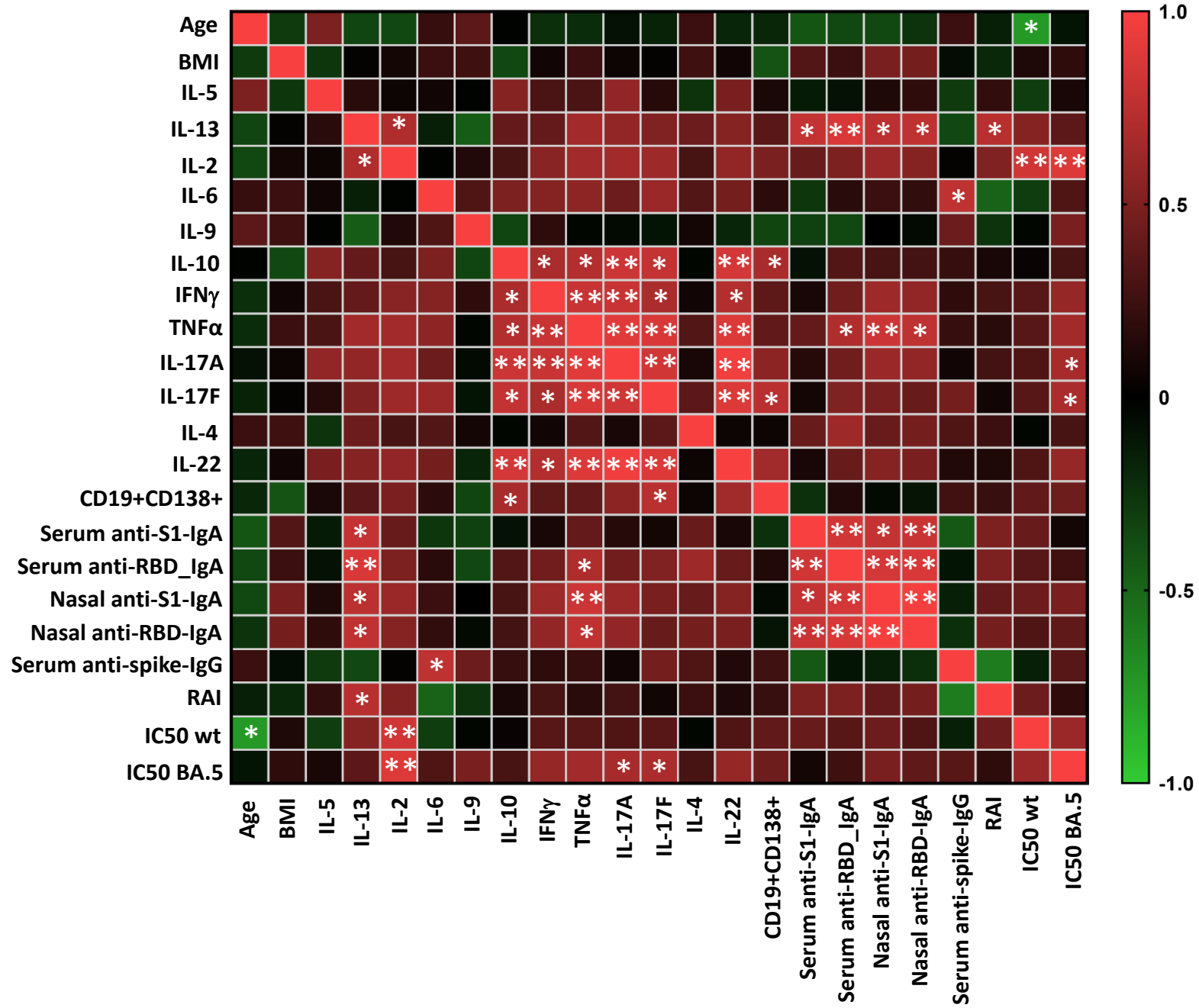
Cytokines (IL-4, IL-2, IL-6, IL-13, IL-10, IL-17A, IL-17F, IL-22) concentrations (pg/mL) to each participant were measured using a bead cytokine assay (LegendPlex™) in anti-IL-5 (mepolizumab/benralizumab), other mAb (dupilumab/omalizumab), and conventional therapy (conv) treated asthma patients. Data are presented as median ± interquartile range. Statistical significance is indicated by p-values.



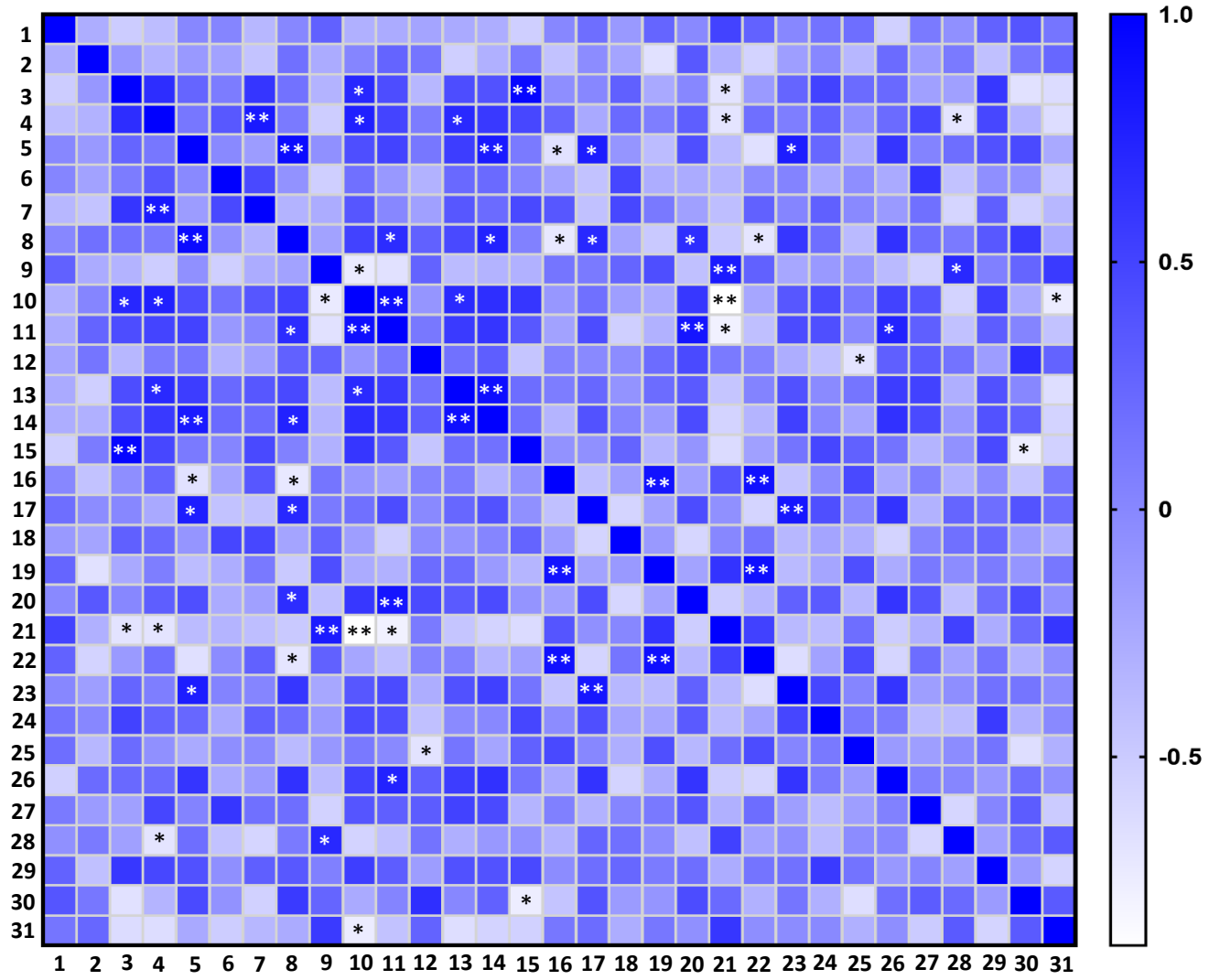
Supplementary Figure 3. Cytokine concentrations in cell culture supernatants upon in vitro stimulation with SARS-CoV-2-spike.

Cytokines (IL-4, IL-2, IL-6, IL-13, IL-10, IL-17A, IL-17F, IL-22) concentrations (pg/mL) to each participant were measured using a bead cytokine assay (LegendPlex™) in anti-IL-5 (mepolizumab/benralizumab), other mAb (dupilumab/omalizumab), and conventional therapy (conv) treated asthma patients pre and post in vitro stimulation with SARS-CoV-2-spike protein. Data are presented as median ± interquartile range. Statistical significance is indicated by p-values.

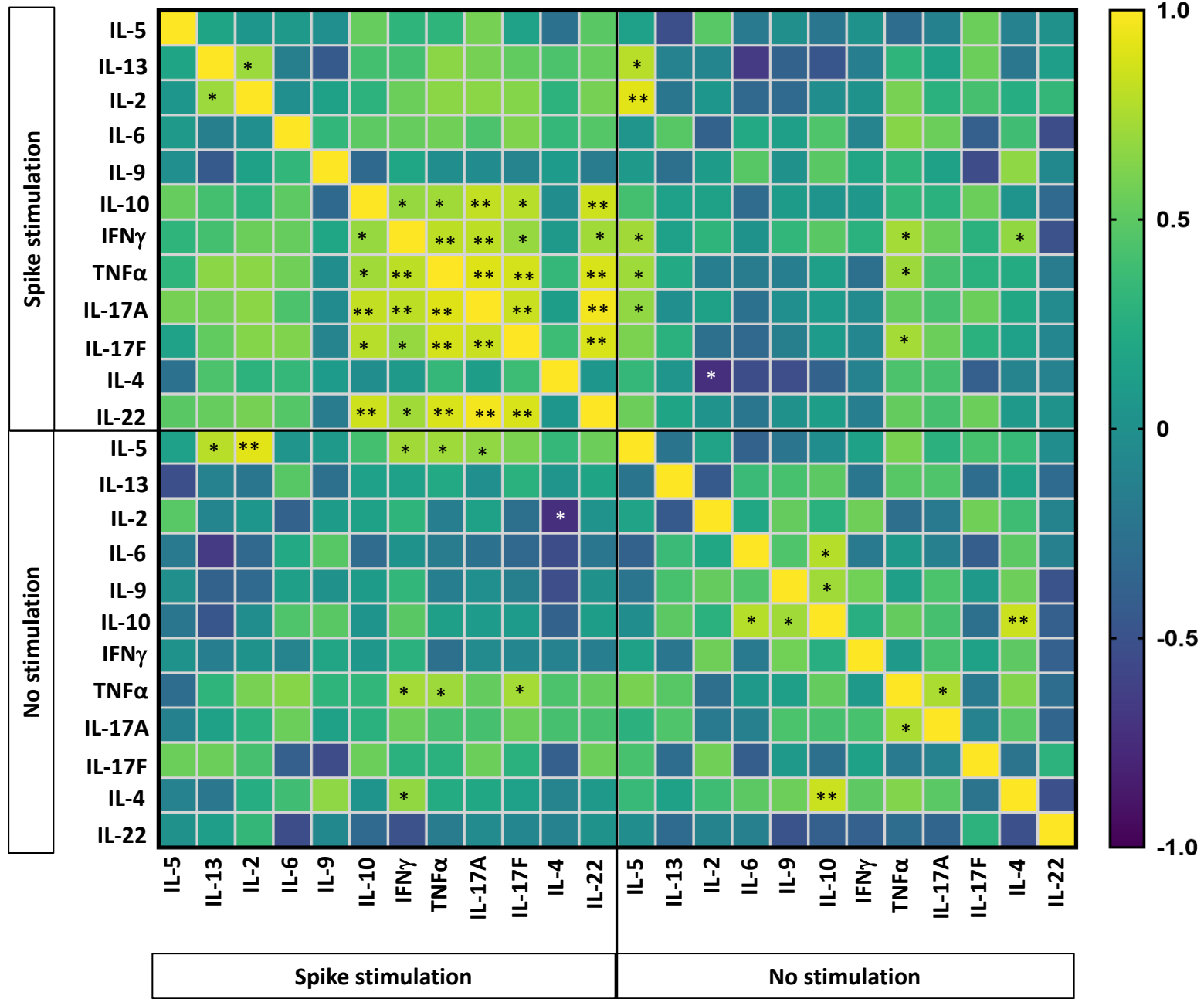
A



C



E



Supplementary Figure 4. Correlation of specific adaptive immune responses

Correlation analysis between demographic parameters, humoral and cellular immune responses was performed in the 9 individuals with mAb (A,C,E) (anti-IL-5 and mAb defined as treated patients) and in the 9 individuals with conventional (B;D;F) therapy. Colors indicate Spearman rank correlation coefficient R and statistical significance is indicated by * $p < 0.05$, ** $p < 0.01$. Numbers in Figure 4C and FD stand for 1: Age, 2: BMI, 3: CD4+CD69+, 4: CD4+IFN γ +, 5: CD4+Ki67+, 6: Memory-CD4+, 7: Memory-IFN γ +CD4+, 8: Memory-Ki67+CD4+, 9: E \dot{I} ector-CD4+, 10: E \dot{I} ector-IFN γ +CD4+, 11: E \dot{I} ector-Ki67+CD4+, 12: Temra-CD4+, 13: Temra-IFN γ +CD4+, 14: Temra-Ki67+CD4+, 15: CD8+CD69+, 16: CD8+IFN γ +, 17: CD8+Ki67+, 18: Memory-CD8+, 19: Memory-IFN γ +CD8+, 20: Memory-Ki67+CD8+, 21: E \dot{I} ector-CD8+, 22: E \dot{I} ector-IFN γ +CD8+, 23: E \dot{I} ector-Ki67+CD8+, 24: Temra-CD8+, 25: Temra-IFN γ +CD8+, 26: Temra-Ki67+CD8+, 27: Perforin+CD8+, 28: Granzyme B+CD8+, 29: IFN γ +CD16+, 30: Perforin+CD16+, 31: Granzyme B+CD16+.

Supplementary Table 1. Characteristics of patients on monoclonal antibodies (mAb).

Patient	Age	Sex	Biologics	Other therapy	Number of vaccinations	Last vaccination (adapted or non-adapted vaccine) (calendar year)	Known infections (calendar year)	Time since last vaccination/infection (months)
P1	52	M	Mepolizumab	ICS, LABA	4	2022 (a)	2023	4
P2	60	M	Mepolizumab	ICS, LABA, LAMA	3	2022 (na)	2021	15
P3	54	M	Benralizumab	ICS, LABA	3	2022 (na)	n.d.	15
P4	69	M	Benralizumab	ICS, LABA, LAMA	3	n.r.	2022	12
P5	67	M	Dupilumab	ICS, LABA, LAMA	4	2022 (a)	n.d.	4
P6	62	F	Dupilumab	ICS, LABA	3	2021 (na)	2021	16
P7	51	F	Omalizumab	ICS, LABA, LAMA	3	2021 (na)	2022	14
P8	64	F	Omalizumab	ICS, LABA	3	2021 (na)	n.d.	16
P9	83	F	Omalizumab	ICS, OCS, LABA, LAMA	3	2022 (na)	n.d.	13

Abbreviations: M, male; F, female; inhaled glucocorticoids, ICS; oral glucocorticoids, OCS; LABA, rapid-onset long-acting β_2 -agonist; LAMA, long-acting muscarinic antagonist; na, non-adapted; a, adapted; adapted to omicron BA.5. n.r., not reported; n.d., not detected.

Supplementary Table 2. Characteristics of patients on conventional therapy (conv).

Patient	Age	Sex	Other therapy	Number of vaccinations	Last vaccination (adapted or non-adapted vaccine)	Known infections	Time since last vaccination/infection (months)
P10	63	M	ICS, LABA, LAMA	3	2021 (na)	n.d.	16
P11	49	F	ICS, LABA, LAMA	1	2021 (na)	2022	12
P12	52	M	OCS, ICS, LABA, LAMA	3	2021 (a)	2022	12
P13	57	M	ICS, LABA, LAMA	4	2022 (a)	n.d.	5
P14	76	F	OCS, ICS, LABA, LAMA	3	2022 (na)	n.d.	14
P15	59	F	ICS, LABA, LAMA	4	2022 (a)	n.d.	4
P16	25	F	ICS, LABA, LAMA	3	2021 (na)	2022	5
P17	29	M	OCS, ICS, LABA, LAMA	3	2022 (na)	2021	12
P18	68	M	OCS, ICS, LABA, LAMA	3	2022 (na)	2022	12

Abbreviations: M, male; F, female; inhaled glucocorticoids, ICS; oral glucocorticoids, OCS; LABA, rapid-onset long-acting β_2 -agonist; LAMA, long-acting muscarinic antagonist; na, non-adapted; a, adapted to omicron BA.5; n.r., not reported; n.d., not detected.

Supplementary Table 3. Serum and nasal concentrations of IL-5 in treated asthma patients.

	anti-IL-5		other mAb		conv	
	Median (IQR)	Min-Max	Median (IQR)	Min-Max	Median (IQR)	Min-Max
Serum IL-5 (pg/mL)	183.11 (93.05-1479.23)	85.79-1888.50	0.43 (0.00-6.02)	0.00-6.51	0.04 (0.00-3.67)	0.00-6.49
Nasal IL-5 (pg/mL)	2.57 (0.74-20.92)	0.39-26.78	1.33 (1.24-2.02)	1.23-2.26	1.44 (1.33-1.93)	1.19-4.81

Supplementary Table 4. Cytokine concentrations (pg/mL) in serum samples from asthma patients

	anti-IL-5				other mAb					conv								anti-IL-5 median (IQR)	other mAb median (IQR)	conv median (IQR)	
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17				P18
IL-5	1888.50	114.81	251.40	85.79	0.00	6.51	0.00	5.53	0.43	3.06	0.04	4.27	0.01	0.10	6.49	0.00	0.00	0.00	183.11 (93.05- 1479.23)	0.43 (0.00- 6.02)	0.04 (0.00- 3.67)
IL-4	0.02	3.38	0.00	0.00	0.00	0.00	0.00	4.70	0.00	23.14	0.00	2.90	0.85	0.39	1.01	0.00	0.00	0.00	0.01 (0.00- 2.54)	0.00 (0.00- 2.35)	0.39 (0.00- 1.96)
IL-2	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.68	0.00	2.24	0.00	0.00	0.01	0.08	0.58	0.00	0.00	0.72	0.00 (0.00- 0.20)	0.00 (0.00- 0.34)	0.01 (0.00- 0.65)
IL-6	1.84	0.43	0.00	0.00	0.80	0.00	1.96	32.64	1.13	12.44	0.04	3.75	0.00	0.83	41.02	1.59	0.39	8.44	0.22 (0.00- 1.49)	1.13 (0.40- 17.30)	1.59 (0.22- 10.44)
INF-γ	0.00	6.62	1.42	0.03	0.64	6.59	0.00	84.79	0.00	117.28	1.28	0.38	1.42	32.27	32.56	2.86	1.47	0.00	0.73 (0.01- 5.32)	0.64 (0.00- 45.69)	1.47 (0.83- 32.42)
TNF-α	0.74	10.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.01	0.00	6.56	0.00	0.63	0.00	0.00	0.00	0.00	0.37 (0.00- 8.33)	0.00 (0.00- 0.00)	0.00 (0.00- 3.60)
IL-9	0.00	0.38	0.01	0.00	0.01	0.00	0.17	3.19	0.00	3.40	0.00	0.09	0.00	0.00	0.00	0.00	0.00	2.61	0.01 (0.00- 0.29)	0.01 (0.00- 1.68)	0.00 (0.00- 1.35)
IL-13	0.01	0.65	0.00	0.00	0.21	0.00	2.25	0.00	0.00	7.37	0.00	2.29	1.31	1.04	0.00	0.58	0.04	0.00	0.01 (0.00- 0.49)	0.00 (0.00- 1.23)	0.58 (0.00-1 .80)
IL-10	0.28	0.39	0.03	0.00	0.19	0.01	0.20	0.65	0.09	1.68	0.41	0.71	0.17	0.66	1.72	0.00	0.19	0.04	0.16 (0.01- 0.36)	0.19 (0.05- 0.43)	0.41 (0.11- 1.20)
IL-17A	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00 (0.00- 0.01)	0.00 (0.00- 0.00)	0.00 (0.00- 0.01)
IL-17F	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	45.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 (0.00- 0.06)	0.00 (0.00- 0.00)	0.00 (0.00- 0.00)
IL-22	0.01	0.00	0.06	0.00	0.00	0.61	0.03	0.00	0.79	1.46	0.00	0.60	0.00	1.98	0.00	0.00	0.08	0.14	0.01 (0.00- 0.05)	0.03 (0.00- 0.70)	0.08 (0.00- 1.03)

Supplementary Table 5. Cytokine concentrations (pg/mL) in nasal swab samples from asthma patients

	anti-IL-5				other mAb					conv								anti-IL-5 median (IQR)	other mAb median (IQR)	conv median (IQR)	
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18			
IL-5	3.35	1.79	26.78	0.39	1.78	1.33	1.26	1.23	2.26	1.19	1.30	1.41	1.35	1.96	4.81	1.88	1.89	1.44	2.57 (0.74- 20.92)	1.33 (1.24- 2.02)	1.44 (1.33- 1.93)
IL-4	3.40	2.70	3.76	1.79	3.55	2.46	4.08	4.38	3.12	1.02	2.25	3.05	2.91	5.56	2.07	4.09	4.13	2.90	3.05 (2.02- 3.67)	3.55 (2.79- 4.23)	2.91 (2.16- 4.11)
IL-2	0.54	0.35	1.92	0.05	3.33	0.93	4.04	1.34	2.70	0.00	1.18	0.05	1.43	5.30	1.55	0.89	4.05	0.00	0.45 (0.13- 1.58)	2.70 (1.14- 3.69)	1.18 (0.03- 2.80)
IL-6	10.39	94.24	20.61	12.10	22.07	0.00	23.51	10.86	5.23	43.36	11.41	0.00	52.81	25.07	84.72	24.60	14.15	277.95	16.36 (10.82- 75.83)	10.86 (2.62- 22.79)	25.07 (12.78- 68.77)
INF-γ	11.68	0.26	9.89	0.00	0.51	1.58	28.55	6.94	7.26	1.52	2.33	0.64	5.12	23.72	0.18	21.14	8.19	2.41	5.08 (0.07- 11.23)	6.94 (1.05- 17.91)	2.41 (1.08- 14.67)
TNF-α	6.87	0.50	4.16	0.28	4.70	0.87	5.10	6.47	3.11	2.17	2.55	0.92	1.65	6.38	4.95	3.10	2.20	15.98	2.33 (0.34- 6.19)	4.70 (1.99- 5.79)	2.55 (1.91- 5.67)
IL-9	1.67	0.14	27.39	0.16	0.31	1.25	3.49	1.31	1.15	0.32	1.31	1.03	1.86	1.39	1.44	2.23	1.13	1.03	0.92 (0.15- 20.96)	1.25 (0.73- 2.40)	1.31 (1.03- 1.65)
IL-13	8.81	0.00	13.52	2.17	5.87	3.88	11.15	12.00	11.55	4.98	3.18	7.43	4.60	13.05	7.70	8.03	6.63	4.18	5.49 (0.54-1 2.34)	11.15 (4.88- 11.78)	6.63 (4.39- 7.87)
IL-10	2.37	1.89	2.66	2.08	1.72	1.38	1.82	2.79	2.70	2.71	1.31	1.95	2.99	3.86	3.69	1.78	3.72	11.38	2.23 (1.94- 2.59)	1.82 (1.55- 2.75)	2.99 (1.87- 3.79)
IL-17A	1.36	1.01	1.26	0.40	0.98	0.47	0.72	0.98	1.38	0.56	1.41	0.37	1.46	1.07	0.70	1.07	1.60	0.89	1.14 (0.55- 1.34)	0.98 (0.60- 1.18)	1.07 (0.63- 1.44)
IL-17F	0.44	0.30	0.58	0.30	0.55	0.52	0.72	0.52	0.42	0.33	0.51	0.52	0.86	0.64	0.44	0.79	0.56	0.35	0.37 (0.30- 0.55)	0.52 (0.47- 0.64)	0.52 (0.40- 0.72)
IL-22	0.59	0.22	2.68	0.19	0.24	0.34	1.20	0.40	0.60	0.31	0.71	0.33	0.46	0.69	0.88	0.49	1.10	0.24	0.41 (0.20- 2.16)	0.40 (0.29- 0.90)	0.49 (0.32- 0.80)

Supplementary Table 6. Serum and nasal concentrations of anti-IgG, RAI and anti-IgA in treated asthma patients

	anti-IL-5		other mAb		conv	
	Median (IQR)	Min-Max	Median (IQR)	Min-Max	Median (IQR)	Min-Max
Anti-spike-SARS-CoV-2-IgG (BAU/mL)	1069.8 (99.1-2296.5)	35.3-2445.6	1177.5 (429.2-2054.2)	267.0-2769.0	410.7 (300.4-824.5)	86.2-1348.9
Anti-spike-SARS-CoV-2-IgG avidity (RAI, %)	91.7 (86.5-94.8)	85.7-94.9	83.2 (62.0-90.1)	42.7-94.4	85.5 (77.5-96.6)	47.4-100.0
Anti-SARS-CoV-2-wt antibody neutralization (IC50)	180.0 (73.3-392.5)	59.0-442.0	97.0 (64.0-134.5)	40.0-167.0	75.0 (55.5-138.5)	25.0-170.0
Anti-SARS-CoV-2-BA.5 antibody neutralization (IC50)	212.5 (100.8-397.8)	65.0-458.0	128.0 (36.0-183.0)	34.0-215.0	104.0 (33.5-156.5)	17.0-294.0
Anti-SARS-CoV-2-S1-IgA in serum (pg/mL)	37916.8 (21109.1-55755.0)	19253.8-57953.7	5531.8 (2355.8-23778.6)	0.0-27891.7	14652.0 (3211.4-22477.2)	1376.5-27302.1
Anti-SARS-CoV-2-RBD-IgA in serum (pg/mL)	24599.6 (17604.4-29639.4)	15541.0-31051.0	4022.6 (1159.2-12922.1)	877.8-15259.8	8917.0 (3791.2-15255.5)	212.1-25269.7
Anti-SARS-CoV-2-S1-IgA nasal (pg/mL)	114.6 (54.0-184.3)	41.8-199.6	30.2 (6.6-35.0)	0.1-35.9	34.4 (7.6-77.9)	5.0-99.9
Anti-SARS-CoV-2-RBD-IgA nasal (pg/mL)	70.5 (36.1-72.2)	24.6-72.8	14.8 (3.8-21.3)	0.2-21.3	17.9 (10.1-53.6)	0.6-109.9

Abbreviations: wt, wild type; BA.5, Omicron variant; S1, spike protein 1; RBD, receptor binding protein

Supplementary Table 7. Proportions of T- and B-cell subpopulations in treated asthma patients

	anti-IL-5		other mAb		conv	
	Median (IQR)	Min-Max	Median (IQR)	Min-Max	Median (IQR)	Min-Max
CD4+ (%)	24.0 (14.5-29.3)	12.5-29.9	29.4 (23.1-37.1)	22.5-37.3	15.9 (14.7-24.1)	12.9-30.5
CD8+ (%)	36.6 (24.4-56.3)	23.7-59.4	28.0 (22.4-40.9)	19.9-51.9	16.8 (10.4-23.8)	7.8-37.0
CD16+ cells (%)	14.3 (12.3-15.7)	11.9-15.9	20.4 (9.9-23.8)	5.5-24.8	23.5 (12.3-39.0)	12.2-62.4
CD19+ cells (%)	2.0 (0.6-3.6)	0.3-3.9	0.6 (0.4-1.9)	0.3-2.5	5.4 (1.8-8.6)	0.2-12.9
CD138+CD19+ plasma cells (%)	0.03 (0.00-0.06)	0.00-0.06	0.01 (0.00-0.02)	0.00-0.02	0.07 (0.05-0.53)	0.02-1.97
Naive CD4+ (%)	18.9 (8.5-41.6)	5.9-48.3	24.5 (5.1-31.3)	0.8-35.1	31.4 (19.0-38.9)	10.5-40.2
Memory CD4+ (%)	53.2 (37.5-62.0)	35.1-62.2	48.0 (27.4-54.5)	15.7-54.6	47.1 (43.2-54.2)	16.6-64.6
Effector CD4+ (%)	18.3 (8.6-46.4)	6.5-54.7	28.7 (9.1-51.6)	5.5-72.9	10.5 (9.5-21.7)	8.1-61.6
Temra CD4+ (%)	1.0 (0.3-3.6)	0.2-4.3	7.4 (5.2-11.6)	4.2-12.6	4.8 (2.3-7.9)	1.4-11.2
Naive CD8 (%)	13.8 (4.2-30.1)	1.7-34.8	12.6 (3.7-41.8)	1.7-52.2	26.3 (19.1-48.5)	13.5-58.0
Memory CD8+ (%)	36.0 (17.5-49.1)	14.0-50.8	24.8 (18.8-31.0)	15.5-36.4	28.8 (17.4-37.9)	9.5-44.0
Effector CD8+ (%)	18.3 (10.6-53.1)	10.4-62.4)	25.0 (11.2-54.6)	8.8-67.4	18.1 (9.5-19.5)	7.1-22.9
Temra CD8+ (%)	20.9 (10.7-35.6)	7.9-39.8	16.2 (14.8-34.8)	14.3-36.7	20.9 (9.5-43.3)	3.9-57.0

Supplementary Table 8. Proportions of activated T-cell subpopulations in treated asthma patients

	anti-IL-5		other mAb		conv	
	Median (IQR)	Min-Max	Median (IQR)	Min-Max	Median (IQR)	Min-Max
IFN-γ+ in CD4 (%)	0.14 (0.03-0.50)	0.00-0.62	0.32 (0.07-0.72)	0.05-1.07	0.38 (0.18-0.58)	0.15-0.78
IFN-γ+ in CD8 (%)	0.07 (0.04-0.13)	0.03-0.15	0.11 (0.03-0.74)	0.00-3.22	0.10 (0.05-0.14)	0.00-0.27
IFN-γ+ in naive T cells CD4 (%)	0.00 (0.00-0.04)	0.00-0.06	0.12 (0.00-0.86)	0.00-1.36	0.00 (0.00-0.10)	0.00-0.11
IFN-γ+ in central memory T cells CD4 (%)	0.18 (0.05-0.56)	0.00-0.68	0.06 (0.00-0.30)	0.00-0.35	0.25 (0.06-0.30)	0.00-0.90
IFN-γ+ in effector memory T cells CD4 (%)	0.28 (0.04-0.68)	0.00-0.77	0.31 (0.00-1.69)	0.00-2.16	0.38 (0.00-0.87)	0.00-1.31
IFN-γ+ in Temra cells CD4 (%)	0.00 (0.00-2.03)	0.00-2.70	0.47 (0.00-7.40)	0.00-12.94	1.90 (0.56-4.26)	0.00-7.87
CD69+ in CD4 (%)	0.38 (0.08-0.57)	0.00-0.62	0.05 (0.00-0.33)	0.00-0.42	0.34 (0.25-0.55)	0.16-0.88
CD69+ in CD8 (%)	0.40 (0.11-0.49)	0.02-0.50	0.05 (0.00-0.19)	0.00-0.32	0.18 (0.09-0.87)	0.04-2.50
Ki67+ in CD4 (%)	0.32 (0.28-0.95)	0.27-1.16	0.97 (0.42-1.11)	0.00-1.12	0.60 (0.49-0.84)	0.42-0.92
Ki67+ in CD8 (%)	0.47 (0.24-0.70)	0.23-0.71	0.60 (0.30-1.01)	0.16-1.22	0.44 (0.34-0.66)	0.19-0.75
Perforin+ in CD8 (%)	5.6 (2.7-9.4)	2.6-9.7	14.0 (5.5-30.3)	4.0-41.5	10.0 (4.8-12.0)	3.6-49.4
Granzyme B+ in CD8 (%)	66.1 (60.0-75.2)	59.5-76.7	60.8 (50.3-73.2)	45.7-84.2	48.5 (22.7-66.0)	5.3-80.1
Perforin+ in CD16 (%)	57.3 (52.3-62.5)	50.4-64.6	77.9 (65.2-86.8)	59.6-90.5	69.9 (54.2-80.9)	33.4-94.3
Granzyme B+ in CD16 (%)	86.9 (83.6-88.3)	80.7-89.3	87.6 (78.0-94.6)	72.4-95.2	76.9 (73.6-89.1)	61.6-98.1

Supplementary Table 9. Cytokine concentrations (pg/mL) in supernatants after in vitro stimulation with spike-protein

anti-IL-5				other mAb					conv										anti-IL-5 median (IQR)	other mAb median (IQR)	conv median (IQR)
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18				
IL-6	8336.4	14814.8	549.9	1738.5	9118.9	210.8	711.4	1114.6	7611.5	3494.6	3995.2	23433.2	2892.4	1713.9	1161.7	211.6	141.2	994.7	5037.5 (847.1- 13195.2)	1114.7 (461.1- 8365.2)	1713.9 (603.2- 3744.9)
IL-5	2.4	2.5	11.0	4.1	2.6	1.2	1.9	2.8	7.4	3.7	7.2	7.2	2.4	2.8	19.2	0.9	2.4	4.9	3.3 (2.4-9.2)	2.6 (1.5- 5.1)	3.7 (2.4- 7.2)
IL-4	1.9	2.0	1.1	2.1	1.6	2.0	1.3	1.0	1.7	0.9	5.4	5.1	1.5	1.5	3.9	2.8	2.1	1.1	2.0 (1.3-2.1)	1.6 (1.2- 1.9)	2.1 (1.3- 4.1)
IFNγ	842.0	1093.3	677.2	265.5	213.9	124.3	176.3	424.3	185.4	187.9	441.9	288.4	548.9	137.7	380.5	295.2	239.6	316.4	759.6 (368.4- 1030.5)	185.4 (150.3- 319.1)	295.2 (213.8- 411.2)
TNF-α	366.1	79.7	51.5	30.7	16.6	5.1	16.1	14.9	18.7	28.1	60.1	54.9	59.5	10.2	24.2	20.2	13.0	25.2	65.6 (35.9- 294.5)	16.1 (10.0- 17.7)	25.2 (16.6- 57.2)
IL-9	91.3	86.7	24.5	48.6	47.7	80.2	33.8	164.2	93.9	49.4	42.7	34.9	47.6	44.8	30.1	74.8	72.1	21.6	67.7 (30.6- 90.1)	80.2 (40.7- 129.1)	44.8 (32.5- 60.8)
IL-13	8.5	5.0	10.1	8.8	1.6	4.4	4.3	0.2	3.3	3.6	23.2	15.4	4.4	6.2	9.5	3.8	1.9	3.8	8.7 (5.9-9.7)	3.3 (0.9- 4.4)	4.4 (3.7- 12.4)
IL-10	13.0	27.3	45.9	8.7	30.8	1.8	2.0	2.8	6.5	3.0	4.7	18.1	14.3	3.5	10.7	4.8	2.5	4.3	20.2 (9.8- 41.3)	2.8 (1.9- 18.7)	4.7 (3.2- 12.5)
IL-17A	0.5	1.2	3.3	0.4	0.3	0.1	0.3	0.3	0.4	0.7	1.7	1.1	0.7	0.2	0.6	0.3	0.4	0.5	0.9 (0.4-2.8)	0.3 (0.2- 0.4)	0.6 (0.4- 0.9)
IL-17F	5.7	6.8	5.3	4.0	4.7	3.3	3.1	2.6	4.6	1.1	5.4	10.5	5.1	3.5	4.7	3.9	4.1	4.3	5.5 (4.3-6.5)	3.3 (2.9- 4.6)	4.3 (3.7- 5.3)
IL-22	12.2	15.6	23.2	2.5	5.0	1.1	1.8	1.4	7.0	4.4	14.0	16.5	6.9	2.0	18.8	1.4	1.3	3.1	13.9 (4.9- 21.3)	1.8 (1.2- 6.0)	4.4 (1.7- 15.2)

Supplementary Table 10. Correlation coefficient and significance (Sig.) of immunity parameters in patients on mAb

	Age	BMI	IL-5	IL-13	IL-2	IL-6	IL-9	IL-10	IFN γ	TNF α	IL-17A	IL-17F	IL-4	IL-22
Age	1.000	-0.283	0.500	-0.333	-0.350	0.217	0.367	-0.017	-0.233	-0.217	-0.083	-0.167	0.233	-0.183
<i>Sig.</i>		0.460	0.170	0.381	0.356	0.576	0.332	0.966	0.546	0.576	0.831	0.668	0.546	0.637
BMI	-0.283	1.000	-0.267	0.017	0.083	0.233	0.250	-0.350	0.067	0.233	0.050	0.017	0.250	0.067
<i>Sig.</i>	0.460		0.488	0.966	0.831	0.546	0.516	0.356	0.865	0.546	0.898	0.966	0.516	0.865
IL-5	0.500	-0.267	1.000	0.167	0.050	0.067	-0.017	0.533	0.300	0.300	0.583	0.150	-0.250	0.483
<i>Sig.</i>	0.170	0.488		0.668	0.898	0.865	0.966	0.139	0.433	0.433	0.099	0.700	0.516	0.187
IL-13	-0.333	0.017	0.167	1.000	0.700*	-0.150	-0.450	0.400	0.400	0.650	0.583	0.517	0.433	0.533
<i>Sig.</i>	0.381	0.966	0.668		0.036	0.700	0.224	0.286	0.286	0.058	0.099	0.154	0.244	0.139
IL-2	-0.350	0.083	0.050	0.700*	1.000	-0.017	0.133	0.283	0.550	0.650	0.650	0.633	0.283	0.583
<i>Sig.</i>	0.356	0.831	0.898	0.036		0.966	0.732	0.460	0.125	0.058	0.058	0.067	0.460	0.099
IL-6	0.217	0.233	0.067	-0.150	-0.017	1.000	0.317	0.500	0.533	0.567	0.433	0.617	0.333	0.467
<i>Sig.</i>	0.576	0.546	0.865	0.700	0.966		0.406	0.170	0.139	0.112	0.244	0.077	0.381	0.205
IL-9	0.367	0.250	-0.017	-0.450	0.133	0.317	1.000	-0.333	0.183	-0.033	-0.050	-0.100	0.083	-0.183
<i>Sig.</i>	0.332	0.516	0.966	0.224	0.732	0.406		0.381	0.637	0.932	0.898	0.798	0.831	0.637
IL-10	-0.017	-0.350	0.533	0.400	0.283	0.500	-0.333	1.000	0.683*	0.717*	0.817**	0.783*	-0.033	0.850**
<i>Sig.</i>	0.966	0.356	0.139	0.286	0.460	0.170	0.381		0.042	0.030	0.007	0.013	0.932	0.004
IFNγ	-0.233	0.067	0.300	0.400	0.550	0.533	0.183	0.683*	1.000	0.800**	0.800**	0.683*	0.067	0.717*
<i>Sig.</i>	0.546	0.865	0.433	0.286	0.125	0.139	0.637	0.042		0.010	0.010	0.042	0.865	0.030
TNFα	-0.217	0.233	0.300	0.650	0.650	0.567	-0.033	0.717*	0.800**	1.000	0.900**	0.867**	0.333	0.883**
<i>Sig.</i>	0.576	0.546	0.433	0.058	0.058	0.112	0.932	0.030	0.010		0.001	0.002	0.381	0.002
IL-17A	-0.083	0.050	0.583	0.583	0.650	0.433	-0.050	0.817**	0.800**	0.900**	1.000	0.833**	0.100	0.967**
<i>Sig.</i>	0.831	0.898	0.099	0.099	0.058	0.244	0.898	0.007	0.010	0.001		0.005	0.798	0.000
IL-17F	-0.167	0.017	0.150	0.517	0.633	0.617	-0.100	0.783*	0.683*	0.867**	0.833**	1.000	0.367	0.883**
<i>Sig.</i>	0.668	0.966	0.700	0.154	0.067	0.077	0.798	0.013	0.042	0.002	0.005		0.332	0.002
IL-4	0.233	0.250	-0.250	0.433	0.283	0.333	0.083	-0.033	0.067	0.333	0.100	0.367	1.000	0.050
<i>Sig.</i>	0.546	0.516	0.516	0.244	0.460	0.381	0.831	0.932	0.865	0.381	0.798	0.332		0.898
IL-22	-0.183	0.067	0.483	0.533	0.583	0.467	-0.183	0.850**	0.717*	0.883**	0.967**	0.883**	0.050	1.000
<i>Sig.</i>	0.637	0.865	0.187	0.139	0.099	0.205	0.637	0.004	0.030	0.002	0.000	0.002	0.898	
CD19+ CD138+	-0.186	-0.407	0.102	0.356	0.492	0.170	-0.339	0.678*	0.373	0.390	0.559	0.746*	0.051	0.644
<i>Sig.</i>	0.631	0.277	0.795	0.347	0.179	0.663	0.372	0.045	0.323	0.300	0.117	0.021	0.897	0.061
anti-S1-IgA serum	-0.417	0.333	-0.133	0.783*	0.417	-0.267	-0.317	-0.083	0.100	0.400	0.150	0.083	0.417	0.100
<i>Sig.</i>	0.265	0.381	0.732	0.013	0.265	0.488	0.406	0.831	0.798	0.286	0.700	0.831	0.265	0.798
anti-RBD-IgA serum	-0.350	0.233	-0.083	0.867**	0.500	0.167	-0.350	0.333	0.450	0.700*	0.450	0.517	0.633	0.417
<i>Sig.</i>	0.356	0.546	0.831	0.002	0.170	0.668	0.356	0.381	0.224	0.036	0.224	0.154	0.067	0.265
anti-S1-IgA	-0.350	0.483	0.117	0.750*	0.617	0.233	0.000	0.283	0.633	0.817**	0.617	0.483	0.417	0.533

nasal														
<i>Sig.</i>	0.356	0.187	0.765	0.020	0.077	0.546	1.000	0.460	0.067	0.007	0.077	0.187	0.265	0.139
anti-RBD-IgA nasal	-0.250	0.467	0.183	0.767*	0.533	0.200	-0.050	0.267	0.583	0.767*	0.583	0.417	0.467	0.483
<i>Sig.</i>	0.516	0.205	0.637	0.016	0.139	0.606	0.898	0.488	0.099	0.016	0.099	0.265	0.205	0.187
anti-spike-IgG	0.233	-0.067	-0.283	-0.350	0.017	0.767*	0.433	0.217	0.183	0.217	0.067	0.467	0.317	0.133
<i>Sig.</i>	0.546	0.865	0.460	0.356	0.966	0.016	0.244	0.576	0.637	0.576	0.865	0.205	0.406	0.732
RAI	-0.150	-0.200	0.200	0.733*	0.517	-0.483	-0.250	0.100	0.283	0.167	0.267	0.067	0.233	0.117
<i>Sig.</i>	0.700	0.606	0.606	0.025	0.154	0.187	0.516	0.798	0.460	0.668	0.488	0.865	0.546	0.765
IC50 wt	-0.750*	0.117	-0.300	0.533	0.833**	-0.300	-0.033	0.033	0.350	0.350	0.317	0.350	-0.033	0.317
<i>Sig.</i>	0.020	0.765	0.433	0.139	0.005	0.433	0.932	0.932	0.356	0.356	0.406	0.356	0.932	0.406
IC50 BA.5	-0.100	0.183	0.100	0.367	0.883**	0.317	0.483	0.283	0.600	0.650	0.667*	0.683*	0.283	0.600
<i>Sig.</i>	0.798	0.637	0.798	0.332	0.002	0.406	0.187	0.460	0.088	0.058	0.050	0.042	0.460	0.088

Supplementary Table 10 (continued). Correlation coefficient and significance (Sig.) of immunity parameters in patients on mAb

	CD19+ CD138+	anti-S1-IgA serum	anti-RBD-IgA serum	anti-S1-IgA nasal	anti-RBD-IgA nasal	anti-spike-IgG	RAI	IC50 wt	IC50 BA.5
Age	-0.186	-0.417	-0.350	-0.350	-0.250	0.233	-0.150	-0.750*	-0.100
<i>Sig.</i>	0.631	0.265	0.356	0.356	0.516	0.546	0.700	0.020	0.798
BMI	-0.407	0.333	0.233	0.483	0.467	-0.067	-0.200	0.117	0.183
<i>Sig.</i>	0.277	0.381	0.546	0.187	0.205	0.865	0.606	0.765	0.637
IL-5	0.102	-0.133	-0.083	0.117	0.183	-0.283	0.200	-0.300	0.100
<i>Sig.</i>	0.795	0.732	0.831	0.765	0.637	0.460	0.606	0.433	0.798
IL-13	0.356	0.783*	0.867**	0.750*	0.767*	-0.350	0.733*	0.533	0.367
<i>Sig.</i>	0.347	0.013	0.002	0.020	0.016	0.356	0.025	0.139	0.332
IL-2	0.492	0.417	0.500	0.617	0.533	0.017	0.517	0.833**	0.883**
<i>Sig.</i>	0.179	0.265	0.170	0.077	0.139	0.966	0.154	0.005	0.002
IL-6	0.170	-0.267	0.167	0.233	0.200	0.767*	-0.483	-0.300	0.317
<i>Sig.</i>	0.663	0.488	0.668	0.546	0.606	0.016	0.187	0.433	0.406
IL-9	-0.339	-0.317	-0.350	0.000	-0.050	0.433	-0.250	-0.033	0.483
<i>Sig.</i>	0.372	0.406	0.356	1.000	0.898	0.244	0.516	0.932	0.187
IL-10	0.678*	-0.083	0.333	0.283	0.267	0.217	0.100	0.033	0.283
<i>Sig.</i>	0.045	0.831	0.381	0.460	0.488	0.576	0.798	0.932	0.460
IFNγ	0.373	0.100	0.450	0.633	0.583	0.183	0.283	0.350	0.600
<i>Sig.</i>	0.323	0.798	0.224	0.067	0.099	0.637	0.460	0.356	0.088
TNFα	0.390	0.400	0.700*	0.817**	0.767*	0.217	0.167	0.350	0.650
<i>Sig.</i>	0.300	0.286	0.036	0.007	0.016	0.576	0.668	0.356	0.058
IL-17A	0.559	0.150	0.450	0.617	0.583	0.067	0.267	0.317	0.667*
<i>Sig.</i>	0.117	0.700	0.224	0.077	0.099	0.865	0.488	0.406	0.050
IL-17F	0.746*	0.083	0.517	0.483	0.417	0.467	0.067	0.350	0.683*
<i>Sig.</i>	0.021	0.831	0.154	0.187	0.265	0.205	0.865	0.356	0.042
IL-4	0.051	0.417	0.633	0.417	0.467	0.317	0.233	-0.033	0.283
<i>Sig.</i>	0.897	0.265	0.067	0.265	0.205	0.406	0.546	0.932	0.460

IL-22	0.644	0.100	0.417	0.533	0.483	0.133	0.117	0.317	0.600
<i>Sig.</i>	0.061	0.798	0.265	0.139	0.187	0.732	0.765	0.406	0.088
CD19+ CD138+	1.000	-0.237	0.136	-0.051	-0.102	0.254	0.220	0.390	0.441
<i>Sig.</i>		0.539	0.728	0.897	0.795	0.509	0.569	0.300	0.235
anti-S1-IgA serum	-0.237	1.000	0.833**	0.783*	0.800**	-0.433	0.500	0.417	0.083
<i>Sig.</i>	0.539		0.005	0.013	0.010	0.244	0.170	0.265	0.831
anti-RBD-IgA serum	0.136	0.833**	1.000	0.850**	0.867**	-0.100	0.500	0.350	0.250
<i>Sig.</i>	0.728	0.005		0.004	0.002	0.798	0.170	0.356	0.516
anti-S1-IgA nasal	-0.051	0.783*	0.850**	1.000	0.983**	-0.150	0.400	0.433	0.483
<i>Sig.</i>	0.897	0.013	0.004		0.000	0.700	0.286	0.244	0.187
anti-RBD-IgA nasal	-0.102	0.800**	0.867**	0.983**	1.000	-0.233	0.467	0.317	0.383
<i>Sig.</i>	0.795	0.010	0.002	0.000		0.546	0.205	0.406	0.308
anti-spike-IgG	0.254	-0.433	-0.100	-0.150	-0.233	1.000	-0.600	-0.150	0.350
<i>Sig.</i>	0.509	0.244	0.798	0.700	0.546		0.088	0.700	0.356
RAI	0.220	0.500	0.500	0.400	0.467	-0.600	1.000	0.433	0.183
<i>Sig.</i>	0.569	0.170	0.170	0.286	0.205	0.088		0.244	0.637
IC50 wt	0.390	0.417	0.350	0.433	0.317	-0.150	0.433	1.000	0.617
<i>Sig.</i>	0.300	0.265	0.356	0.244	0.406	0.700	0.244		0.077
IC50 BA.5	0.441	0.083	0.250	0.483	0.383	0.350	0.183	0.617	1.000
<i>Sig.</i>	0.235	0.831	0.516	0.187	0.308	0.356	0.637	0.077	

Notes to supplementary table 10: Significance is given by * p<0.05 and **p<0.01 (Spearman rank correlation).

Supplementary Table 11. Correlation coefficient and significance (Sig.) of immunity parameters in patients on conv.

	Age	BMI	IL-5	IL-13	IL-2	IL-6	IL-9	IL-10	IFN γ	TNF α	IL-17A	IL-17F	IL-4	IL-22
Age	1.000	-0.500	0.283	-0.017	-0.200	0.183	-0.533	-0.183	-0.267	-0.133	-0.167	-0.300	-0.567	0.167
<i>Sig.</i>		0.170	0.460	0.966	0.606	0.637	0.139	0.637	0.488	0.732	0.668	0.433	0.112	0.668
BMI	-0.500	1.000	-0.283	-0.200	-0.300	0.283	0.567	-0.067	-0.217	0.317	0.283	-0.133	0.000	-0.167
<i>Sig.</i>	0.170		0.460	0.606	0.433	0.460	0.112	0.865	0.576	0.406	0.460	0.732	1.000	0.668
IL-5	0.283	-0.283	1.000	0.583	0.500	0.467	-0.800**	0.200	0.200	0.350	0.517	0.467	0.433	0.767*
<i>Sig.</i>	0.460	0.460		0.099	0.170	0.205	0.010	0.606	0.606	0.356	0.154	0.205	0.244	0.016
IL-13	-0.017	-0.200	0.583	1.000	0.617	0.650	-0.500	0.667*	0.400	0.450	0.517	0.683*	0.750*	0.733*
<i>Sig.</i>	0.966	0.606	0.099		0.077	0.058	0.170	0.050	0.286	0.224	0.154	0.042	0.020	0.025
IL-2	-0.200	-0.300	0.500	0.617	1.000	0.333	-0.583	0.800**	0.650	0.500	0.600	0.933**	0.583	0.733*
<i>Sig.</i>	0.606	0.433	0.170	0.077		0.381	0.099	0.010	0.058	0.170	0.088	0.000	0.099	0.025
IL-6	0.183	0.283	0.467	0.650	0.333	1.000	-0.317	0.433	0.117	0.733*	0.783*	0.467	0.250	0.700*
<i>Sig.</i>	0.637	0.460	0.205	0.058	0.381		0.406	0.244	0.765	0.025	0.013	0.205	0.516	0.036
IL-9	-0.533	0.567	-0.800**	-0.500	-0.583	-0.317	1.000	-0.350	-0.317	-0.283	-0.333	-0.517	-0.167	-0.650
<i>Sig.</i>	0.139	0.112	0.010	0.170	0.099	0.406		0.356	0.406	0.460	0.381	0.154	0.668	0.058
IL-10	-0.183	-0.067	0.200	0.667*	0.800**	0.433	-0.350	1.000	0.600	0.500	0.483	0.733*	0.467	0.683*
<i>Sig.</i>	0.637	0.865	0.606	0.050	0.010	0.244	0.356		0.088	0.170	0.187	0.025	0.205	0.042
IFNγ	-0.267	-0.217	0.200	0.400	0.650	0.117	-0.317	0.600	1.000	0.650	0.550	0.683*	0.300	0.500
<i>Sig.</i>	0.488	0.576	0.606	0.286	0.058	0.765	0.406	0.088		0.058	0.125	0.042	0.433	0.170
TNFα	-0.133	0.317	0.350	0.450	0.500	0.733*	-0.283	0.500	0.650	1.000	0.950**	0.667*	0.200	0.650
<i>Sig.</i>	0.732	0.406	0.356	0.224	0.170	0.025	0.460	0.170	0.058		0.000	0.050	0.606	0.058
IL-17A	-0.167	0.283	0.517	0.517	0.600	0.783*	-0.333	0.483	0.550	0.950**	1.000	0.733*	0.350	0.750*
<i>Sig.</i>	0.668	0.460	0.154	0.154	0.088	0.013	0.381	0.187	0.125	0.000		0.025	0.356	0.020
IL-17F	-0.300	-0.133	0.467	0.683*	0.933**	0.467	-0.517	0.733*	0.683*	0.667*	0.733*	1.000	0.650	0.667*
<i>Sig.</i>	0.433	0.732	0.205	0.042	0.000	0.205	0.154	0.025	0.042	0.050	0.025		0.058	0.050
IL-4	-0.567	0.000	0.433	0.750*	0.583	0.250	-0.167	0.467	0.300	0.200	0.350	0.650	1.000	0.417
<i>Sig.</i>	0.112	1.000	0.244	0.020	0.099	0.516	0.668	0.205	0.433	0.606	0.356	0.058		0.265
IL-22	0.167	-0.167	0.767*	0.733*	0.733*	0.700*	-0.650	0.683*	0.500	0.650	0.750*	0.667*	0.417	1.000
<i>Sig.</i>	0.668	0.668	0.016	0.025	0.025	0.036	0.058	0.042	0.170	0.058	0.020	0.050	0.265	
CD19+ CD138+	-0.050	0.333	-0.383	-0.050	-0.333	0.367	0.550	-0.167	0.017	0.333	0.267	-0.167	-0.233	-0.083
<i>Sig.</i>	0.898	0.381	0.308	0.898	0.381	0.332	0.125	0.668	0.966	0.381	0.488	0.668	0.546	0.831
anti-S1-IgA serum	-0.167	0.267	0.250	-0.467	-0.067	-0.183	-0.083	-0.500	-0.100	0.100	0.183	0.000	-0.117	-0.167
<i>Sig.</i>	0.668	0.488	0.516	0.205	0.865	0.637	0.831	0.170	0.798	0.798	0.637	1.000	0.765	0.668
anti-RBD-IgA serum	0.567	-0.317	0.183	-0.300	-0.517	-0.233	-0.217	-0.783*	-0.600	-0.500	-0.450	-0.483	-0.333	-0.400
<i>Sig.</i>	0.112	0.406	0.637	0.433	0.154	0.546	0.576	0.013	0.088	0.170	0.224	0.187	0.381	0.286
anti-S1-IgA	-0.250	0.817**	0.150	0.167	0.083	0.650	0.083	0.300	0.133	0.717*	0.683*	0.217	0.083	0.383

nasal														
<i>Sig.</i>	0.516	0.007	0.700	0.668	0.831	0.058	0.831	0.433	0.732	0.030	0.042	0.576	0.831	0.308
anti-RBD-IgA nasal	-0.033	0.717*	0.067	0.283	-0.133	0.633	0.067	0.233	-0.283	0.333	0.300	0.000	0.117	0.183
<i>Sig.</i>	0.932	0.030	0.865	0.460	0.732	0.067	0.865	0.546	0.460	0.381	0.433	1.000	0.765	0.637
anti-spike-IgG	-0.017	0.650	-0.117	-0.350	0.000	0.300	0.050	0.117	-0.050	0.450	0.383	0.033	-0.417	0.067
<i>Sig.</i>	0.966	0.058	0.765	0.356	1.000	0.433	0.898	0.765	0.898	0.224	0.308	0.932	0.265	0.865
RAI	-0.550	-0.100	0.233	0.500	0.200	-0.083	0.133	0.117	0.233	-0.083	0.033	0.233	0.817**	0.150
<i>Sig.</i>	0.125	0.798	0.546	0.170	0.606	0.831	0.732	0.765	0.546	0.831	0.932	0.546	0.007	0.700
IC50 wt	-0.433	0.767*	-0.183	-0.283	0.017	0.300	0.467	0.033	-0.150	0.350	0.433	0.050	-0.067	0.050
<i>Sig.</i>	0.244	0.016	0.637	0.460	0.966	0.433	0.205	0.932	0.700	0.356	0.244	0.898	0.865	0.898
IC50 BA.5	-0.183	0.617	-0.217	-0.717*	-0.267	-0.133	0.283	-0.383	-0.283	0.083	0.083	-0.233	-0.450	-0.333
<i>Sig.</i>	0.637	0.077	0.576	0.030	0.488	0.732	0.460	0.308	0.460	0.831	0.831	0.546	0.224	0.381

Supplementary Table 11 (continued). Correlation coefficient and significance (Sig.) of immunity parameters in patients on conv.

	CD19+ CD138+	anti-S1-IgA serum	anti-RBD-IgA serum	anti-S1-IgA nasal	anti-RBD-IgA nasal	anti-spike-IgG	RAI	IC50 wt	IC50 BA.5
Age	-0.050	-0.167	0.567	-0.250	-0.033	-0.017	-0.550	-0.433	-0.183
<i>Sig.</i>	0.898	0.668	0.112	0.516	0.932	0.966	0.125	0.244	0.637
BMI	0.333	0.267	-0.317	0.817**	0.717*	0.650	-0.100	0.767*	0.617
<i>Sig.</i>	0.381	0.488	0.406	0.007	0.030	0.058	0.798	0.016	0.077
IL-5	-0.383	0.250	0.183	0.150	0.067	-0.117	0.233	-0.183	-0.217
<i>Sig.</i>	0.308	0.516	0.637	0.700	0.865	0.765	0.546	0.637	0.576
IL-13	-0.050	-0.467	-0.300	0.167	0.283	-0.350	0.500	-0.283	-0.717*
<i>Sig.</i>	0.898	0.205	0.433	0.668	0.460	0.356	0.170	0.460	0.030
IL-2	-0.333	-0.067	-0.517	0.083	-0.133	0.000	0.200	0.017	-0.267
<i>Sig.</i>	0.381	0.865	0.154	0.831	0.732	1.000	0.606	0.966	0.488
IL-6	0.367	-0.183	-0.233	0.650	0.633	0.300	-0.083	0.300	-0.133
<i>Sig.</i>	0.332	0.637	0.546	0.058	0.067	0.433	0.831	0.433	0.732
IL-9	0.550	-0.083	-0.217	0.083	0.067	0.050	0.133	0.467	0.283
<i>Sig.</i>	0.125	0.831	0.576	0.831	0.865	0.898	0.732	0.205	0.460
IL-10	-0.167	-0.500	-0.783*	0.300	0.233	0.117	0.117	0.033	-0.383
<i>Sig.</i>	0.668	0.170	0.013	0.433	0.546	0.765	0.765	0.932	0.308
IFNγ	0.017	-0.100	-0.600	0.133	-0.283	-0.050	0.233	-0.150	-0.283
<i>Sig.</i>	0.966	0.798	0.088	0.732	0.460	0.898	0.546	0.700	0.460
TNFα	0.333	0.100	-0.500	0.717*	0.333	0.450	-0.083	0.350	0.083
<i>Sig.</i>	0.381	0.798	0.170	0.030	0.381	0.224	0.831	0.356	0.831
IL-17A	0.267	0.183	-0.450	0.683*	0.300	0.383	0.033	0.433	0.083
<i>Sig.</i>	0.488	0.637	0.224	0.042	0.433	0.308	0.932	0.244	0.831
IL-17F	-0.167	0.000	-0.483	0.217	0.000	0.033	0.233	0.050	-0.233
<i>Sig.</i>	0.668	1.000	0.187	0.576	1.000	0.932	0.546	0.898	0.546
IL-4	-0.233	-0.117	-0.333	0.083	0.117	-0.417	0.817**	-0.067	-0.450
<i>Sig.</i>	0.546	0.765	0.381	0.831	0.765	0.265	0.007	0.865	0.224

IL-22	-0.083	-0.167	-0.400	0.383	0.183	0.067	0.150	0.050	-0.333
<i>Sig.</i>	0.831	0.668	0.286	0.308	0.637	0.865	0.700	0.898	0.381
CD19+ CD138+	1.000	-0.250	-0.183	0.250	0.100	0.050	-0.033	0.367	-0.017
<i>Sig.</i>		0.516	0.637	0.516	0.798	0.898	0.932	0.332	0.966
anti-S1-IgA serum	-0.250	1.000	0.367	0.183	-0.117	0.400	-0.183	0.350	0.767*
<i>Sig.</i>	0.516		0.332	0.637	0.765	0.286	0.637	0.356	0.016
anti-RBD-IgA serum	-0.183	0.367	1.000	-0.467	-0.183	-0.250	-0.200	-0.417	0.083
<i>Sig.</i>	0.637	0.332		0.205	0.637	0.516	0.606	0.265	0.831
anti-S1-IgA nasal	0.250	0.183	-0.467	1.000	0.783*	0.733*	-0.167	0.667*	0.433
<i>Sig.</i>	0.516	0.637	0.205		0.013	0.025	0.668	0.050	0.244
anti-RBD-IgA nasal	0.100	-0.117	-0.183	0.783*	1.000	0.517	-0.167	0.367	0.183
<i>Sig.</i>	0.798	0.765	0.637	0.013		0.154	0.668	0.332	0.637
anti-spike-IgG	0.050	0.400	-0.250	0.733*	0.517	1.000	-0.717*	0.700*	0.800**
<i>Sig.</i>	0.898	0.286	0.516	0.025	0.154		0.030	0.036	0.010
RAI	-0.033	-0.183	-0.200	-0.167	-0.167	-0.717*	1.000	-0.217	-0.550
<i>Sig.</i>	0.932	0.637	0.606	0.668	0.668	0.030		0.576	0.125
IC50 wt	0.367	0.350	-0.417	0.667*	0.367	0.700*	-0.217	1.000	0.700*
<i>Sig.</i>	0.332	0.356	0.265	0.050	0.332	0.036	0.576		0.036
IC50 BA.5	-0.017	0.767*	0.083	0.433	0.183	0.800**	-0.550	0.700*	1.000
<i>Sig.</i>	0.966	0.016	0.831	0.244	0.637	0.010	0.125	0.036	

Notes to supplementary table 11: Significance is given by * p<0.05 and **p<0.01 (Spearman rank correlation).

Supplementary Table 12. Correlation coefficient and significance (Sig.) of cellular parameters in patients on mAb

	Age	BMI	CD69+CD4+	IFN γ +CD4+	Ki67+CD4+	Memory-CD4+	Memory-IFN γ +CD4+	Memory-Ki67+CD4+	Effector-CD4+	Effector-IFN γ +CD4+	Effector-Ki67+CD4+	Temra-CD4+
Age	1.000	-0.283	-0.509	-0.400	0.000	0.017	-0.356	0.000	0.283	-0.305	-0.268	-0.217
<i>Sig.</i>		0.460	0.162	0.286	1.000	0.966	0.347	1.000	0.460	0.425	0.486	0.576
BMI	-0.283	1.000	-0.119	-0.317	-0.133	-0.200	-0.441	0.167	-0.267	0.017	0.259	0.133
<i>Sig.</i>	0.460		0.761	0.406	0.732	0.606	0.235	0.668	0.488	0.965	0.500	0.732
CD4+CD69+	-0.509	-0.119	1.000	0.661	0.254	0.085	0.603	0.153	-0.322	0.707*	0.426	-0.356
<i>Sig.</i>	0.162	0.761		0.053	0.509	0.828	0.085	0.695	0.398	0.033	0.253	0.347
IFNγ+CD4+	-0.400	-0.317	0.661	1.000	0.117	0.350	0.814**	0.100	-0.517	0.763*	0.494	0.083
<i>Sig.</i>	0.286	0.406	0.053		0.765	0.356	0.008	0.798	0.154	0.017	0.177	0.831
Ki67+CD4+	0.000	-0.133	0.254	0.117	1.000	-0.017	-0.153	0.917**	-0.067	0.424	0.502	0.117
<i>Sig.</i>	1.000	0.732	0.509	0.765		0.966	0.695	0.001	0.865	0.256	0.168	0.765
Memory-CD4+	0.017	-0.200	0.085	0.350	-0.017	1.000	0.458	-0.083	-0.533	0.170	-0.126	-0.317
<i>Sig.</i>	0.966	0.606	0.828	0.356	0.966		0.215	0.831	0.139	0.663	0.748	0.406
Memory-IFNγ+CD4+	-0.356	-0.441	0.603	0.814**	-0.153	0.458	1.000	-0.322	-0.271	0.362	0.000	-0.186
<i>Sig.</i>	0.347	0.235	0.085	0.008	0.695	0.215		0.398	0.480	0.338	1.000	0.631
Memory-Ki67+CD4+	0.000	0.167	0.153	0.100	0.917**	-0.083	-0.322	1.000	-0.200	0.509	0.669*	0.283
<i>Sig.</i>	1.000	0.668	0.695	0.798	0.001	0.831	0.398		0.606	0.162	0.049	0.460
Effector-CD4+	0.283	-0.267	-0.322	-0.517	-0.067	-0.533	-0.271	-0.200	1.000	-0.729*	-0.661	0.267
<i>Sig.</i>	0.460	0.488	0.398	0.154	0.865	0.139	0.480	0.606		0.026	0.053	0.488
Effector-IFNγ+CD4+	-0.305	0.017	0.707*	0.763*	0.424	0.170	0.362	0.509	-0.729*	1.000	0.885**	-0.102
<i>Sig.</i>	0.425	0.965	0.033	0.017	0.256	0.663	0.338	0.162	0.026		0.002	0.795
Effector-Ki67+CD4+	-0.268	0.259	0.426	0.494	0.502	-0.126	0.000	0.669*	-0.661	0.885**	1.000	0.109
<i>Sig.</i>	0.486	0.500	0.253	0.177	0.168	0.748	1.000	0.049	0.053	0.002		0.781
Temra-CD4+	-0.217	0.133	-0.356	0.083	0.117	-0.317	-0.186	0.283	0.267	-0.102	0.109	1.000
<i>Sig.</i>	0.576	0.732	0.347	0.831	0.765	0.406	0.631	0.460	0.488	0.795	0.781	
Temra-IFNγ+CD4+	-0.256	-0.529	0.427	0.694*	0.548	0.219	0.353	0.456	-0.383	0.687*	0.568	0.164
<i>Sig.</i>	0.507	0.143	0.252	0.038	0.127	0.571	0.352	0.217	0.308	0.041	0.110	0.673
Temra-Ki67+CD4+	-0.279	-0.305	0.390	0.574	0.801**	0.218	0.204	0.749*	-0.322	0.655	0.603	0.305
<i>Sig.</i>	0.468	0.425	0.300	0.106	0.010	0.574	0.599	0.020	0.398	0.055	0.086	0.425
CD69+CD8+	-0.527	0.092	0.953**	0.469	0.100	0.017	0.460	0.042	-0.310	0.596	0.349	-0.460
<i>Sig.</i>	0.145	0.814	0.000	0.203	0.797	0.966	0.213	0.915	0.417	0.090	0.358	0.213
IFNγ+CD8+	0.000	-0.433	-0.051	0.250	-0.667*	-0.217	0.356	-0.717*	0.133	-0.119	-0.201	0.033
<i>Sig.</i>	1.000	0.244	0.897	0.516	0.050	0.576	0.347	0.030	0.732	0.761	0.604	0.932
Ki67+CD8+	0.183	-0.033	0.000	-0.250	0.783*	-0.433	-0.424	0.700*	0.100	0.170	0.435	-0.017
<i>Sig.</i>	0.637	0.932	1.000	0.516	0.013	0.244	0.256	0.036	0.798	0.663	0.242	0.966
Memory-CD8+	-0.133	-0.217	0.288	0.217	-0.100	0.483	0.475	-0.217	0.250	-0.170	-0.527	-0.033
<i>Sig.</i>	0.732	0.576	0.452	0.576	0.798	0.187	0.197	0.576	0.516	0.663	0.145	0.932
Memory-IFNγ+CD8+	0.252	-0.661	-0.248	0.070	-0.392	-0.279	0.106	-0.487	0.418	-0.266	-0.306	0.200
<i>Sig.</i>	0.512	0.052	0.520	0.859	0.297	0.468	0.786	0.183	0.263	0.490	0.423	0.606
Memory-Ki67+CD8+	-0.017	0.350	0.000	0.300	0.417	-0.267	-0.186	0.667*	-0.417	0.593	0.845**	0.450
<i>Sig.</i>	0.966	0.356	1.000	0.433	0.265	0.488	0.631	0.050	0.265	0.092	0.004	0.224
Effector-CD8+	0.500	-0.300	-0.678*	-0.683*	-0.383	-0.333	-0.407	-0.483	0.800**	-0.881**	-0.778*	0.100

<i>Sig.</i>	0.170	0.433	0.045	0.042	0.308	0.381	0.277	0.187	0.010	0.002	0.014	0.798
Effector-IFNγ+CD8+	0.270	-0.557	-0.142	0.174	-0.653	-0.035	0.283	-0.696*	0.279	-0.230	-0.411	0.026
<i>Sig.</i>	0.483	0.119	0.716	0.654	0.057	0.929	0.460	0.037	0.468	0.551	0.272	0.947
Effector-Ki67+CD8+	0.000	-0.167	0.254	0.067	0.783*	0.033	0.017	0.600	-0.233	0.356	0.444	-0.283
<i>Sig.</i>	1.000	0.668	0.509	0.865	0.013	0.932	0.965	0.088	0.546	0.347	0.232	0.460
Temra-CD8+	0.150	0.000	0.509	0.267	0.233	-0.250	0.288	0.183	-0.133	0.441	0.410	-0.417
<i>Sig.</i>	0.700	1.000	0.162	0.488	0.546	0.516	0.452	0.637	0.732	0.235	0.273	0.265
Temra-IFNγ+CD8+	0.186	-0.356	0.207	-0.068	-0.254	-0.051	-0.017	-0.373	-0.119	0.103	-0.017	-0.678*
<i>Sig.</i>	0.631	0.347	0.593	0.862	0.509	0.897	0.965	0.323	0.761	0.791	0.965	0.045
Temra-Ki67+CD8+	-0.536	0.209	0.221	0.209	0.603	-0.259	-0.136	0.636	-0.377	0.511	0.748*	0.293
<i>Sig.</i>	0.137	0.589	0.567	0.589	0.086	0.500	0.727	0.066	0.318	0.160	0.020	0.444
Perforin+CD8+	0.100	-0.150	-0.186	0.483	0.033	0.600	0.170	0.183	-0.550	0.373	0.293	0.317
<i>Sig.</i>	0.798	0.700	0.631	0.187	0.932	0.088	0.663	0.637	0.125	0.323	0.444	0.406
Granzyme B+CD8+	-0.067	0.100	-0.186	-0.683*	0.183	-0.433	-0.576	0.100	0.700*	-0.559	-0.427	0.150
<i>Sig.</i>	0.865	0.798	0.631	0.042	0.637	0.244	0.104	0.798	0.036	0.117	0.252	0.700
IFNγ+CD16+	0.274	-0.420	0.594	0.475	0.402	-0.055	0.297	0.347	0.055	0.539	0.312	-0.164
<i>Sig.</i>	0.476	0.260	0.092	0.197	0.284	0.889	0.438	0.360	0.889	0.135	0.414	0.673
Perforin+CD16+	0.367	0.117	-0.661	-0.333	0.450	-0.083	-0.542	0.567	0.250	-0.254	0.025	0.650
<i>Sig.</i>	0.332	0.765	0.053	0.381	0.224	0.831	0.131	0.112	0.516	0.509	0.949	0.058
Granzyme B+CD16+	0.133	0.233	-0.627	-0.633	-0.250	-0.517	-0.356	-0.267	0.567	-0.746*	-0.435	0.267
<i>Sig.</i>	0.732	0.546	0.071	0.067	0.516	0.154	0.347	0.488	0.112	0.021	0.242	0.488

Supplementary Table 12 (continued). Correlation coefficient and significance (Sig.) of cellular parameters in patients on mAb

	Temra-IFN γ +CD4+	Temra-Ki67+CD4+	CD69+CD8+	IFN γ +CD8+	Ki67+CD8+	Memory-CD8+	Memory-IFN γ +CD8+	Memory-Ki67+CD8+	Effector-CD8+	Effector-IFN γ +CD8+	Effector-Ki67+CD8+
Age	-0.256	-0.279	-0.527	0.000	0.183	-0.133	0.252	-0.017	0.500	0.270	0.000
<i>Sig.</i>	0.507	0.468	0.145	1.000	0.637	0.732	0.512	0.966	0.170	0.483	1.000
BMI	-0.529	-0.305	0.092	-0.433	-0.033	-0.217	-0.661	0.350	-0.300	-0.557	-0.167
<i>Sig.</i>	0.143	0.425	0.814	0.244	0.932	0.576	0.052	0.356	0.433	0.119	0.668
CD4+CD69+	0.427	0.390	0.953**	-0.051	0.000	0.288	-0.248	0.000	-0.678*	-0.142	0.254
<i>Sig.</i>	0.252	0.300	0.000	0.897	1.000	0.452	0.520	1.000	0.045	0.716	0.509
IFNγ+CD4+	0.694*	0.574	0.469	0.250	-0.250	0.217	0.070	0.300	-0.683*	0.174	0.067
<i>Sig.</i>	0.038	0.106	0.203	0.516	0.516	0.576	0.859	0.433	0.042	0.654	0.865
Ki67+CD4+	0.548	0.801**	0.100	-0.667*	0.783*	-0.100	-0.392	0.417	-0.383	-0.653	0.783*
<i>Sig.</i>	0.127	0.010	0.797	0.050	0.013	0.798	0.297	0.265	0.308	0.057	0.013
Memory-CD4+	0.219	0.218	0.017	-0.217	-0.433	0.483	-0.279	-0.267	-0.333	-0.035	0.033
<i>Sig.</i>	0.571	0.574	0.966	0.576	0.244	0.187	0.468	0.488	0.381	0.929	0.932
Memory-IFNγ+CD4+	0.353	0.204	0.460	0.356	-0.424	0.475	0.106	-0.186	-0.407	0.283	0.017
<i>Sig.</i>	0.352	0.599	0.213	0.347	0.256	0.197	0.786	0.631	0.277	0.460	0.965

Memory-Ki67+CD4+	0.456	0.749*	0.042	-0.717*	0.700*	-0.217	-0.487	0.667*	-0.483	-0.696*	0.600
<i>Sig.</i>	0.217	0.020	0.915	0.030	0.036	0.576	0.183	0.050	0.187	0.037	0.088
Effector-CD4+	-0.383	-0.322	-0.310	0.133	0.100	0.250	0.418	-0.417	0.800**	0.279	-0.233
<i>Sig.</i>	0.308	0.398	0.417	0.732	0.798	0.516	0.263	0.265	0.010	0.468	0.546
Effector-IFNγ+CD4+	0.687*	0.655	0.596	-0.119	0.170	-0.170	-0.266	0.593	-0.881**	-0.230	0.356
<i>Sig.</i>	0.041	0.055	0.090	0.761	0.663	0.663	0.490	0.092	0.002	0.551	0.347
Effector-Ki67+CD4+	0.568	0.603	0.349	-0.201	0.435	-0.527	-0.306	0.845**	-0.778*	-0.411	0.444
<i>Sig.</i>	0.110	0.086	0.358	0.604	0.242	0.145	0.423	0.004	0.014	0.272	0.232
Temra-CD4+	0.164	0.305	-0.460	0.033	-0.017	-0.033	0.200	0.450	0.100	0.026	-0.283
<i>Sig.</i>	0.673	0.425	0.213	0.932	0.966	0.932	0.606	0.224	0.798	0.947	0.460
Temra-IFNγ+CD4+	1.000	0.896**	0.193	0.073	0.237	-0.091	0.200	0.329	-0.456	0.029	0.402
<i>Sig.</i>		0.001	0.620	0.852	0.539	0.815	0.605	0.388	0.217	0.942	0.284
Temra-Ki67+CD4+	0.896**	1.000	0.162	-0.331	0.392	0.017	-0.141	0.444	-0.557	-0.332	0.522
<i>Sig.</i>	0.001		0.678	0.385	0.297	0.965	0.718	0.231	0.119	0.383	0.149
CD69+CD8+	0.193	0.162	1.000	-0.084	-0.067	0.259	-0.341	-0.092	-0.619	-0.184	0.142
<i>Sig.</i>	0.620	0.678		0.831	0.864	0.500	0.369	0.814	0.075	0.636	0.715
IFNγ+CD8+	0.073	-0.331	-0.084	1.000	-0.417	-0.167	0.862**	-0.183	0.367	0.879**	-0.450
<i>Sig.</i>	0.852	0.385	0.831		0.265	0.668	0.003	0.637	0.332	0.002	0.224
Ki67+CD8+	0.237	0.392	-0.067	-0.417	1.000	-0.567	-0.200	0.433	-0.067	-0.566	0.833**
<i>Sig.</i>	0.539	0.297	0.864	0.265		0.112	0.606	0.244	0.865	0.112	0.005
Memory-CD8+	-0.091	0.017	0.259	-0.167	-0.567	1.000	-0.131	-0.583	0.000	0.131	-0.350
<i>Sig.</i>	0.815	0.965	0.500	0.668	0.112		0.738	0.099	1.000	0.738	0.356
Memory-IFNγ+CD8+	0.200	-0.141	-0.341	0.862**	-0.200	-0.131	1.000	-0.209	0.618	0.891**	-0.374
<i>Sig.</i>	0.605	0.718	0.369	0.003	0.606	0.738		0.590	0.076	0.001	0.321
Memory-Ki67+CD8+	0.329	0.444	-0.092	-0.183	0.433	-0.583	-0.209	1.000	-0.517	-0.348	0.283
<i>Sig.</i>	0.388	0.231	0.814	0.637	0.244	0.099	0.590		0.154	0.359	0.460
Effector-CD8+	-0.456	-0.557	-0.619	0.367	-0.067	0.000	0.618	-0.517	1.000	0.514	-0.367
<i>Sig.</i>	0.217	0.119	0.075	0.332	0.865	1.000	0.076	0.154		0.157	0.332
Effector-IFNγ+CD8+	0.029	-0.332	-0.184	0.879**	-0.566	0.131	0.891**	-0.348	0.514	1.000	-0.635
<i>Sig.</i>	0.942	0.383	0.636	0.002	0.112	0.738	0.001	0.359	0.157		0.066
Effector-Ki67+CD8+	0.402	0.522	0.142	-0.450	0.833**	-0.350	-0.374	0.283	-0.367	-0.635	1.000
<i>Sig.</i>	0.284	0.149	0.715	0.224	0.005	0.356	0.321	0.460	0.332	0.066	
Temra-CD8+	-0.018	-0.009	0.477	-0.033	0.417	-0.217	-0.218	0.333	-0.383	-0.200	0.483
<i>Sig.</i>	0.963	0.982	0.194	0.932	0.265	0.576	0.574	0.381	0.308	0.606	0.187
Temra-IFNγ+CD8+	0.130	-0.221	0.281	0.458	0.000	-0.288	0.416	-0.356	0.186	0.434	0.017
<i>Sig.</i>	0.739	0.567	0.464	0.215	1.000	0.452	0.265	0.347	0.631	0.243	0.965
Temra-Ki67+CD8+	0.550	0.638	0.147	-0.251	0.619	-0.561	-0.262	0.611	-0.510	-0.577	0.611
<i>Sig.</i>	0.125	0.064	0.706	0.515	0.075	0.116	0.495	0.081	0.160	0.104	0.081
Perforin+CD8+	0.511	0.453	-0.335	0.050	-0.317	0.017	0.104	0.367	-0.300	0.191	-0.167
<i>Sig.</i>	0.160	0.221	0.379	0.898	0.406	0.966	0.789	0.332	0.433	0.622	0.668
Granzyme B+CD8+	-0.292	-0.122	-0.075	-0.317	0.250	0.167	-0.035	-0.417	0.517	-0.209	-0.050
<i>Sig.</i>	0.446	0.755	0.847	0.406	0.516	0.668	0.929	0.265	0.154	0.590	0.898

IFNγ+CD16+	0.400	0.391	0.458	-0.037	0.183	0.237	0.086	0.183	-0.274	0.143	0.164
<i>Sig.</i>	0.286	0.298	0.215	0.926	0.638	0.539	0.826	0.638	0.476	0.714	0.673
Perforin+CD16+	0.000	0.279	-0.753*	-0.450	0.383	-0.150	-0.104	0.433	0.217	-0.313	0.133
<i>Sig.</i>	1.000	0.468	0.019	0.224	0.308	0.700	0.789	0.244	0.576	0.412	0.732
Granzyme B+CD16+	-0.639	-0.557	-0.544	0.117	0.200	-0.283	0.122	-0.067	0.600	-0.052	-0.033
<i>Sig.</i>	0.064	0.119	0.130	0.765	0.606	0.460	0.755	0.865	0.088	0.894	0.932

Supplementary Table 12 (continued). Correlation coefficient and significance (Sig.) of cellular parameters in patients on mAb

	Temra-CD8+	Temra-IFN γ +CD8+	Temra-Ki67+CD8+	Perforin+CD8+	Granzyme B+CD8+	IFN γ +CD16+	Perforin+CD16+	Granzyme B+CD16+
Age	0.150	0.186	-0.536	0.100	-0.067	0.274	0.367	0.133
<i>Sig.</i>	0.700	0.631	0.137	0.798	0.865	0.476	0.332	0.732
BMI	0.000	-0.356	0.209	-0.150	0.100	-0.420	0.117	0.233
<i>Sig.</i>	1.000	0.347	0.589	0.700	0.798	0.260	0.765	0.546
CD4+CD69+	0.509	0.207	0.221	-0.186	-0.186	0.594	-0.661	-0.627
<i>Sig.</i>	0.162	0.593	0.567	0.631	0.631	0.092	0.053	0.071
IFNγ+CD4+	0.267	-0.068	0.209	0.483	-0.683*	0.475	-0.333	-0.633
<i>Sig.</i>	0.488	0.862	0.589	0.187	0.042	0.197	0.381	0.067
Ki67+CD4+	0.233	-0.254	0.603	0.033	0.183	0.402	0.450	-0.250
<i>Sig.</i>	0.546	0.509	0.086	0.932	0.637	0.284	0.224	0.516
Memory-CD4+	-0.250	-0.051	-0.259	0.600	-0.433	-0.055	-0.083	-0.517
<i>Sig.</i>	0.516	0.897	0.500	0.088	0.244	0.889	0.831	0.154
Memory-IFNγ+CD4+	0.288	-0.017	-0.136	0.170	-0.576	0.297	-0.542	-0.356
<i>Sig.</i>	0.452	0.965	0.727	0.663	0.104	0.438	0.131	0.347
Memory-Ki67+CD4+	0.183	-0.373	0.636	0.183	0.100	0.347	0.567	-0.267
<i>Sig.</i>	0.637	0.323	0.066	0.637	0.798	0.360	0.112	0.488
Effector-CD4+	-0.133	-0.119	-0.377	-0.550	0.700*	0.055	0.250	0.567
<i>Sig.</i>	0.732	0.761	0.318	0.125	0.036	0.889	0.516	0.112
Effector-IFNγ+CD4+	0.441	0.103	0.511	0.373	-0.559	0.539	-0.254	-0.746*
<i>Sig.</i>	0.235	0.791	0.160	0.323	0.117	0.135	0.509	0.021
Effector-Ki67+CD4+	0.410	-0.017	0.748*	0.293	-0.427	0.312	0.025	-0.435
<i>Sig.</i>	0.273	0.965	0.020	0.444	0.252	0.414	0.949	0.242
Temra-CD4+	-0.417	-0.678*	0.293	0.317	0.150	-0.164	0.650	0.267
<i>Sig.</i>	0.265	0.045	0.444	0.406	0.700	0.673	0.058	0.488
Temra-IFNγ+CD4+	-0.018	0.130	0.550	0.511	-0.292	0.400	0.000	-0.639
<i>Sig.</i>	0.963	0.739	0.125	0.160	0.446	0.286	1.000	0.064
Temra-Ki67+CD4+	-0.009	-0.221	0.638	0.453	-0.122	0.391	0.279	-0.557
<i>Sig.</i>	0.982	0.567	0.064	0.221	0.755	0.298	0.468	0.119

CD69+CD8+	0.477	0.281	0.147	-0.335	-0.075	0.458	-0.753*	-0.544
<i>Sig.</i>	0.194	0.464	0.706	0.379	0.847	0.215	0.019	0.130
IFNγ+CD8+	-0.033	0.458	-0.251	0.050	-0.317	-0.037	-0.450	0.117
<i>Sig.</i>	0.932	0.215	0.515	0.898	0.406	0.926	0.224	0.765
Ki67+CD8+	0.417	0.000	0.619	-0.317	0.250	0.183	0.383	0.200
<i>Sig.</i>	0.265	1.000	0.075	0.406	0.516	0.638	0.308	0.606
Memory-CD8+	-0.217	-0.288	-0.561	0.017	0.167	0.237	-0.150	-0.283
<i>Sig.</i>	0.576	0.452	0.116	0.966	0.668	0.539	0.700	0.460
Memory-IFNγ+CD8+	-0.218	0.416	-0.262	0.104	-0.035	0.086	-0.104	0.122
<i>Sig.</i>	0.574	0.265	0.495	0.789	0.929	0.826	0.789	0.755
Memory-Ki67+CD8+	0.333	-0.356	0.611	0.367	-0.417	0.183	0.433	-0.067
<i>Sig.</i>	0.381	0.347	0.081	0.332	0.265	0.638	0.244	0.865
Effector-CD8+	-0.383	0.186	-0.510	-0.300	0.517	-0.274	0.217	0.600
<i>Sig.</i>	0.308	0.631	0.160	0.433	0.154	0.476	0.576	0.088
Effector-IFNγ+CD8+	-0.200	0.434	-0.577	0.191	-0.209	0.143	-0.313	-0.052
<i>Sig.</i>	0.606	0.243	0.104	0.622	0.590	0.714	0.412	0.894
Effector-Ki67+CD8+	0.483	0.017	0.611	-0.167	-0.050	0.164	0.133	-0.033
<i>Sig.</i>	0.187	0.965	0.081	0.668	0.898	0.673	0.732	0.932
Temra-CD8+	1.000	0.102	0.092	-0.383	-0.383	0.566	-0.300	-0.017
<i>Sig.</i>		0.795	0.814	0.308	0.308	0.112	0.433	0.966
Temra-IFNγ+CD8+	0.102	1.000	-0.136	-0.170	-0.034	0.149	-0.644	-0.305
<i>Sig.</i>	0.795		0.727	0.663	0.931	0.703	0.061	0.425
Temra-Ki67+CD8+	0.092	-0.136	1.000	0.042	0.008	-0.128	0.176	-0.050
<i>Sig.</i>	0.814	0.727		0.915	0.983	0.742	0.651	0.898
Perforin+CD8+	-0.383	-0.170	0.042	1.000	-0.583	0.018	0.317	-0.500
<i>Sig.</i>	0.308	0.663	0.915		0.099	0.963	0.406	0.170
Granzyme B+CD8+	-0.383	-0.034	0.008	-0.583	1.000	-0.183	0.217	0.333
<i>Sig.</i>	0.308	0.931	0.983	0.099		0.638	0.576	0.381
IFNγ+CD16+	0.566	0.149	-0.128	0.018	-0.183	1.000	-0.146	-0.566
<i>Sig.</i>	0.112	0.703	0.742	0.963	0.638		0.708	0.112
Perforin+CD16+	-0.300	-0.644	0.176	0.317	0.217	-0.146	1.000	0.333
<i>Sig.</i>	0.433	0.061	0.651	0.406	0.576	0.708		0.381
Granzyme B+CD16+	-0.017	-0.305	-0.050	-0.500	0.333	-0.566	0.333	1.000
<i>Sig.</i>	0.966	0.425	0.898	0.170	0.381	0.112	0.381	

Notes to supplementary table 12: Significance is given by * $p < 0.05$ and ** $p < 0.01$ (Spearman rank correlation).

Supplementary Table 13. Correlation coefficient and significance (Sig.) of cellular parameters in patients on conv.

	Age	BMI	CD69+CD4+	IFN γ +CD4+	Ki67+CD4+	Memory-CD4+	Memory-IFN γ +CD4+	Memory-Ki67+CD4+	Effector-CD4+	Effector-IFN γ +CD4+	Effector-Ki67+CD4+	Temra-CD4+
Age	1.000	-0.500	-0.317	-0.383	-0.083	-0.033	-0.733*	0.117	0.067	-0.479	0.167	0.183
<i>Sig.</i>		0.170	0.406	0.308	0.831	0.932	0.025	0.765	0.865	0.192	0.668	0.637
BMI	-0.500	1.000	0.133	-0.333	0.467	0.633	0.700*	0.450	0.017	-0.174	0.167	-0.650
<i>Sig.</i>	0.170		0.732	0.381	0.205	0.067	0.036	0.224	0.966	0.654	0.668	0.058
CD4+CD69+	-0.317	0.133	1.000	0.133	0.367	0.117	0.450	-0.417	0.083	0.644	0.067	0.117
<i>Sig.</i>	0.406	0.732		0.732	0.332	0.765	0.224	0.265	0.831	0.061	0.865	0.765
IFNγ+CD4+	-0.383	-0.333	0.133	1.000	-0.517	-0.800**	0.117	-0.350	0.450	0.775*	-0.867**	0.633
<i>Sig.</i>	0.308	0.381	0.732		0.154	0.010	0.765	0.356	0.224	0.014	0.002	0.067
Ki67+CD4+	-0.083	0.467	0.367	-0.517	1.000	0.633	0.467	0.500	-0.083	-0.183	0.467	-0.450
<i>Sig.</i>	0.831	0.205	0.332	0.154		0.067	0.205	0.170	0.831	0.638	0.205	0.224
Memory-CD4+	-0.033	0.633	0.117	-0.800**	0.633	1.000	0.367	0.283	-0.600	-0.392	0.683*	-0.900**
<i>Sig.</i>	0.932	0.067	0.765	0.010	0.067		0.332	0.460	0.088	0.297	0.042	0.001
Memory-IFNγ+CD4+	-0.733*	0.700*	0.450	0.117	0.467	0.367	1.000	0.267	0.017	0.305	-0.183	-0.500
<i>Sig.</i>	0.025	0.036	0.224	0.765	0.205	0.332		0.488	0.966	0.425	0.637	0.170
Memory-Ki67+CD4+	0.117	0.450	-0.417	-0.350	0.500	0.283	0.267	1.000	0.233	-0.618	-0.017	-0.383
<i>Sig.</i>	0.765	0.224	0.265	0.356	0.170	0.460	0.488		0.546	0.076	0.966	0.308
Effector-CD4+	0.067	0.017	0.083	0.450	-0.083	-0.600	0.017	0.233	1.000	0.148	-0.600	0.617
<i>Sig.</i>	0.865	0.966	0.831	0.224	0.831	0.088	0.966	0.546		0.704	0.088	0.077
Effector-IFNγ+CD4+	-0.479	-0.174	0.644	0.775*	-0.183	-0.392	0.305	-0.618	0.148	1.000	-0.514	0.418
<i>Sig.</i>	0.192	0.654	0.061	0.014	0.638	0.297	0.425	0.076	0.704		0.157	0.263
Effector-Ki67+CD4+	0.167	0.167	0.067	-0.867**	0.467	0.683*	-0.183	-0.017	-0.600	-0.514	1.000	-0.450
<i>Sig.</i>	0.668	0.668	0.865	0.002	0.205	0.042	0.637	0.966	0.088	0.157		0.224
Temra-CD4+	0.183	-0.650	0.117	0.633	-0.450	-0.900**	-0.500	-0.383	0.617	0.418	-0.450	1.000
<i>Sig.</i>	0.637	0.058	0.765	0.067	0.224	0.001	0.170	0.308	0.077	0.263	0.224	
Temra-IFNγ+CD4+	0.084	-0.728*	-0.042	0.753*	-0.661	-0.678*	-0.360	-0.552	0.017	0.621	-0.594	0.594
<i>Sig.</i>	0.831	0.026	0.915	0.019	0.053	0.045	0.342	0.123	0.966	0.075	0.092	0.092
Temra-Ki67+CD4+	-0.800**	0.000	0.250	0.583	-0.283	-0.300	0.500	-0.383	-0.100	0.548	-0.333	0.050
<i>Sig.</i>	0.010	1.000	0.516	0.099	0.460	0.433	0.170	0.308	0.798	0.126	0.381	0.898
CD69+CD8+	0.333	-0.400	0.250	-0.217	-0.283	-0.150	-0.517	-0.467	-0.100	-0.087	0.400	0.367
<i>Sig.</i>	0.381	0.286	0.516	0.576	0.460	0.700	0.154	0.205	0.798	0.824	0.286	0.332
IFNγ+CD8+	0.533	-0.250	0.167	-0.317	0.600	0.217	-0.067	0.233	0.033	-0.148	0.200	-0.067
<i>Sig.</i>	0.139	0.516	0.668	0.406	0.088	0.576	0.865	0.546	0.932	0.704	0.606	0.865
Ki67+CD8+	0.700*	-0.300	-0.450	-0.283	0.233	0.050	-0.400	0.583	0.000	-0.470	0.033	0.000
<i>Sig.</i>	0.036	0.433	0.224	0.460	0.546	0.898	0.286	0.099	1.000	0.202	0.932	1.000
Memory-CD8+	0.150	-0.067	-0.183	-0.600	0.267	0.583	-0.033	-0.033	-0.767*	-0.409	0.633	-0.633
<i>Sig.</i>	0.700	0.865	0.637	0.088	0.488	0.099	0.932	0.932	0.016	0.274	0.067	0.067
Memory-IFNγ+CD8+	0.475	-0.485	-0.208	0.030	0.030	-0.327	-0.337	0.396	0.168	-0.228	-0.139	0.347
<i>Sig.</i>	0.196	0.186	0.591	0.940	0.940	0.391	0.376	0.291	0.665	0.556	0.722	0.361
Memory-Ki67+CD8+	0.550	0.067	-0.583	-0.417	0.133	0.267	-0.333	0.633	-0.100	-0.592	0.117	-0.233
<i>Sig.</i>	0.125	0.865	0.099	0.265	0.732	0.488	0.381	0.067	0.798	0.093	0.765	0.546
Effector-CD8+	0.433	-0.183	-0.267	-0.283	0.267	-0.067	-0.550	0.150	0.233	-0.348	0.333	0.283

<i>Sig.</i>	0.244	0.637	0.488	0.460	0.488	0.865	0.125	0.700	0.546	0.359	0.381	0.460
Effector-IFNγ+CD8+	-0.274	-0.073	0.183	0.456	0.292	-0.073	0.347	-0.018	0.018	0.563	-0.383	0.018
<i>Sig.</i>	0.476	0.852	0.638	0.217	0.446	0.852	0.360	0.963	0.963	0.115	0.308	0.963
Effector-Ki67+CD8+	0.133	-0.700*	0.267	0.550	-0.083	-0.467	-0.033	-0.300	0.067	0.557	-0.450	0.417
<i>Sig.</i>	0.732	0.036	0.488	0.125	0.831	0.205	0.932	0.433	0.865	0.119	0.224	0.265
Temra-CD8+	0.317	-0.367	0.200	0.233	-0.367	-0.500	-0.550	-0.333	0.400	0.218	-0.117	0.750*
<i>Sig.</i>	0.406	0.332	0.606	0.546	0.332	0.170	0.125	0.381	0.286	0.574	0.765	0.020
Temra-IFNγ+CD8+	-0.165	-0.261	-0.061	-0.104	-0.061	-0.052	-0.044	-0.296	-0.287	-0.136	0.322	-0.070
<i>Sig.</i>	0.671	0.497	0.876	0.789	0.876	0.894	0.911	0.439	0.454	0.726	0.398	0.859
Temra-Ki67+CD8+	-0.083	0.383	0.083	-0.367	0.767*	0.633	0.600	0.583	-0.283	-0.191	0.167	-0.700*
<i>Sig.</i>	0.831	0.308	0.831	0.332	0.016	0.067	0.088	0.099	0.460	0.622	0.668	0.036
Perforin+CD8+	0.600	0.067	0.100	-0.583	0.150	0.433	-0.367	0.050	-0.183	-0.313	0.450	-0.133
<i>Sig.</i>	0.088	0.865	0.798	0.099	0.700	0.244	0.332	0.898	0.637	0.412	0.224	0.732
Granzyme B+CD8+	0.433	-0.300	0.183	0.083	-0.300	-0.367	-0.517	-0.200	0.367	0.078	-0.067	0.617
<i>Sig.</i>	0.244	0.433	0.637	0.831	0.433	0.332	0.154	0.606	0.332	0.841	0.865	0.077
IFNγ+CD16+	-0.350	0.233	0.517	0.600	0.033	-0.400	0.450	-0.050	0.800**	0.592	-0.633	0.417
<i>Sig.</i>	0.356	0.546	0.154	0.088	0.932	0.286	0.224	0.898	0.010	0.093	0.067	0.265
Perforin+CD16+	0.100	0.333	-0.733*	-0.333	-0.083	0.300	-0.200	0.483	-0.250	-0.557	0.150	-0.383
<i>Sig.</i>	0.798	0.381	0.025	0.381	0.831	0.433	0.606	0.187	0.516	0.119	0.700	0.308
Granzyme B+CD16+	0.517	-0.050	-0.717*	-0.333	-0.083	0.167	-0.517	0.417	-0.200	-0.540	0.133	-0.150
<i>Sig.</i>	0.154	0.898	0.030	0.381	0.831	0.668	0.154	0.265	0.606	0.134	0.732	0.700

Supplementary Table 13 (continued). Correlation coefficient and significance (Sig.) of cellular parameters in patients on conv

	Temra-IFN γ +CD4+	Temra-Ki67+CD4+	CD69+CD8+	IFN γ +CD8+	Ki67+CD8+	Memory-CD8+	Memory-IFN γ +CD8+	Memory-Ki67+CD8+	Effector-CD8+	Effector-IFN γ +CD8+	Effector-Ki67+CD8+
Age	0.084	-0.800**	0.333	0.533	0.700*	0.150	0.475	0.550	0.433	-0.274	0.133
<i>Sig.</i>	0.831	0.010	0.381	0.139	0.036	0.700	0.196	0.125	0.244	0.476	0.732
BMI	-0.728*	0.000	-0.400	-0.250	-0.300	-0.067	-0.485	0.067	-0.183	-0.073	-0.700*
<i>Sig.</i>	0.026	1.000	0.286	0.516	0.433	0.865	0.186	0.865	0.637	0.852	0.036
CD4+CD69+	-0.042	0.250	0.250	0.167	-0.450	-0.183	-0.208	-0.583	-0.267	0.183	0.267
<i>Sig.</i>	0.915	0.516	0.516	0.668	0.224	0.637	0.591	0.099	0.488	0.638	0.488
IFNγ+CD4+	0.753*	0.583	-0.217	-0.317	-0.283	-0.600	0.030	-0.417	-0.283	0.456	0.550
<i>Sig.</i>	0.019	0.099	0.576	0.406	0.460	0.088	0.940	0.265	0.460	0.217	0.125
Ki67+CD4+	-0.661	-0.283	-0.283	0.600	0.233	0.267	0.030	0.133	0.267	0.292	-0.083
<i>Sig.</i>	0.053	0.460	0.460	0.088	0.546	0.488	0.940	0.732	0.488	0.446	0.831
Memory-CD4+	-0.678*	-0.300	-0.150	0.217	0.050	0.583	-0.327	0.267	-0.067	-0.073	-0.467
<i>Sig.</i>	0.045	0.433	0.700	0.576	0.898	0.099	0.391	0.488	0.865	0.852	0.205
Memory-IFNγ+CD4+	-0.360	0.500	-0.517	-0.067	-0.400	-0.033	-0.337	-0.333	-0.550	0.347	-0.033
<i>Sig.</i>	0.342	0.170	0.154	0.865	0.286	0.932	0.376	0.381	0.125	0.360	0.932

Memory-Ki67+CD4+	-0.552	-0.383	-0.467	0.233	0.583	-0.033	0.396	0.633	0.150	-0.018	-0.300
<i>Sig.</i>	0.123	0.308	0.205	0.546	0.099	0.932	0.291	0.067	0.700	0.963	0.433
Effector-CD4+	0.017	-0.100	-0.100	0.033	0.000	-0.767*	0.168	-0.100	0.233	0.018	0.067
<i>Sig.</i>	0.966	0.798	0.798	0.932	1.000	0.016	0.665	0.798	0.546	0.963	0.865
Effector-IFNγ+CD4+	0.621	0.548	-0.087	-0.148	-0.470	-0.409	-0.228	-0.592	-0.348	0.563	0.557
<i>Sig.</i>	0.075	0.126	0.824	0.704	0.202	0.274	0.556	0.093	0.359	0.115	0.119
Effector-Ki67+CD4+	-0.594	-0.333	0.400	0.200	0.033	0.633	-0.139	0.117	0.333	-0.383	-0.450
<i>Sig.</i>	0.092	0.381	0.286	0.606	0.932	0.067	0.722	0.765	0.381	0.308	0.224
Temra-CD4+	0.594	0.050	0.367	-0.067	0.000	-0.633	0.347	-0.233	0.283	0.018	0.417
<i>Sig.</i>	0.092	0.898	0.332	0.865	1.000	0.067	0.361	0.546	0.460	0.963	0.265
Temra-IFNγ+CD4+	1.000	0.268	0.059	-0.151	0.059	-0.276	0.229	-0.109	-0.192	0.358	0.678*
<i>Sig.</i>		0.486	0.881	0.699	0.881	0.472	0.554	0.781	0.620	0.345	0.045
Temra-Ki67+CD4+	0.268	1.000	-0.100	-0.467	-0.700*	-0.017	-0.297	-0.750*	-0.600	0.201	0.267
<i>Sig.</i>	0.486		0.798	0.205	0.036	0.966	0.438	0.020	0.088	0.604	0.488
CD69+CD8+	0.059	-0.100	1.000	-0.167	-0.100	-0.050	0.257	-0.133	-0.033	-0.730*	-0.083
<i>Sig.</i>	0.881	0.798		0.668	0.798	0.898	0.504	0.732	0.932	0.025	0.831
IFNγ+CD8+	-0.151	-0.467	-0.167	1.000	0.517	0.400	0.248	0.133	0.433	0.402	0.483
<i>Sig.</i>	0.699	0.205	0.668		0.154	0.286	0.521	0.732	0.244	0.284	0.187
Ki67+CD8+	0.059	-0.700*	-0.100	0.517	1.000	0.067	0.772*	0.850**	0.350	0.073	0.183
<i>Sig.</i>	0.881	0.036	0.798	0.154		0.865	0.015	0.004	0.356	0.852	0.637
Memory-CD8+	-0.276	-0.017	-0.050	0.400	0.067	1.000	-0.218	-0.017	0.067	0.037	0.033
<i>Sig.</i>	0.472	0.966	0.898	0.286	0.865		0.573	0.966	0.865	0.926	0.932
Memory-IFNγ+CD8+	0.229	-0.297	0.257	0.248	0.772*	-0.218	1.000	0.525	0.050	-0.130	0.347
<i>Sig.</i>	0.554	0.438	0.504	0.521	0.015	0.573		0.147	0.899	0.739	0.361
Memory-Ki67+CD8+	-0.109	-0.750*	-0.133	0.133	0.850**	-0.017	0.525	1.000	0.250	-0.146	-0.283
<i>Sig.</i>	0.781	0.020	0.732	0.732	0.004	0.966	0.147		0.516	0.708	0.460
Effector-CD8+	-0.192	-0.600	-0.033	0.433	0.350	0.067	0.050	0.250	1.000	0.091	-0.133
<i>Sig.</i>	0.620	0.088	0.932	0.244	0.356	0.865	0.899	0.516		0.815	0.732
Effector-IFNγ+CD8+	0.358	0.201	-0.730*	0.402	0.073	0.037	-0.130	-0.146	0.091	1.000	0.602
<i>Sig.</i>	0.345	0.604	0.025	0.284	0.852	0.926	0.739	0.708	0.815		0.086
Effector-Ki67+CD8+	0.678*	0.267	-0.083	0.483	0.183	0.033	0.347	-0.283	-0.133	0.602	1.000
<i>Sig.</i>	0.045	0.488	0.831	0.187	0.637	0.932	0.361	0.460	0.732	0.086	
Temra-CD8+	0.360	-0.283	0.667*	-0.250	0.083	-0.683*	0.366	0.100	0.167	-0.383	-0.017
<i>Sig.</i>	0.342	0.460	0.050	0.516	0.831	0.042	0.332	0.798	0.668	0.308	0.966
Temra-IFNγ+CD8+	-0.127	0.479	0.139	0.104	-0.400	0.635	-0.279	-0.601	0.078	-0.067	0.148
<i>Sig.</i>	0.745	0.192	0.721	0.789	0.286	0.066	0.467	0.087	0.841	0.865	0.704
Temra-Ki67+CD8+	-0.427	-0.083	-0.583	0.583	0.333	0.483	0.059	0.217	-0.117	0.456	0.150
<i>Sig.</i>	0.252	0.831	0.099	0.099	0.381	0.187	0.879	0.576	0.765	0.217	0.700
Perforin+CD8+	-0.184	-0.767*	0.483	0.133	0.417	-0.033	0.238	0.583	0.117	-0.456	-0.333
<i>Sig.</i>	0.635	0.016	0.187	0.732	0.265	0.932	0.538	0.099	0.765	0.217	0.381
Granzyme B+CD8+	0.251	-0.400	0.700*	-0.183	0.200	-0.633	0.455	0.233	0.083	-0.493	-0.067
<i>Sig.</i>	0.515	0.286	0.036	0.637	0.606	0.067	0.218	0.546	0.831	0.178	0.865

IFNγ+CD16+	0.067	0.250	-0.250	-0.033	-0.400	-0.700*	-0.218	-0.467	-0.100	0.310	0.183
<i>Sig.</i>	0.864	0.516	0.516	0.932	0.286	0.036	0.573	0.205	0.798	0.416	0.637
Perforin+CD16+	-0.176	-0.400	-0.250	-0.367	0.400	0.017	0.079	0.783*	0.150	-0.219	-0.633
<i>Sig.</i>	0.651	0.286	0.516	0.332	0.286	0.966	0.839	0.013	0.700	0.571	0.067
Granzyme B+CD16+	0.050	-0.683*	-0.117	-0.017	0.733*	0.033	0.366	0.933**	0.350	-0.128	-0.317
<i>Sig.</i>	0.898	0.042	0.765	0.966	0.025	0.932	0.332	0.000	0.356	0.743	0.406

Supplementary Table 13 (continued). Correlation coefficient and significance (Sig.) of cellular parameters in patients on conv

	Temra-CD8+	Temra-IFN γ +CD8+	Temra-Ki67+CD8+	Perforin+CD8+	Granzyme B+CD8+	IFN γ +CD16+	Perforin+CD16+	Granzyme B+CD16+
Age	0.150	0.186	-0.536	0.100	-0.067	0.274	0.367	0.133
<i>Sig.</i>	0.406	0.671	0.831	0.088	0.244	0.356	0.798	0.154
BMI	0.000	-0.356	0.209	-0.150	0.100	-0.420	0.117	0.233
<i>Sig.</i>	0.332	0.497	0.308	0.865	0.433	0.546	0.381	0.898
CD4+CD69+	0.509	0.207	0.221	-0.186	-0.186	0.594	-0.661	-0.627
<i>Sig.</i>	0.606	0.876	0.831	0.798	0.637	0.154	0.025	0.030
IFNγ+CD4+	0.267	-0.068	0.209	0.483	-0.683*	0.475	-0.333	-0.633
<i>Sig.</i>	0.546	0.789	0.332	0.099	0.831	0.088	0.381	0.381
Ki67+CD4+	0.233	-0.254	0.603	0.033	0.183	0.402	0.450	-0.250
<i>Sig.</i>	0.332	0.876	0.016	0.700	0.433	0.932	0.831	0.831
Memory-CD4+	-0.250	-0.051	-0.259	0.600	-0.433	-0.055	-0.083	-0.517
<i>Sig.</i>	0.170	0.894	0.067	0.244	0.332	0.286	0.433	0.668
Memory-IFNγ+CD4+	0.288	-0.017	-0.136	0.170	-0.576	0.297	-0.542	-0.356
<i>Sig.</i>	0.125	0.911	0.088	0.332	0.154	0.224	0.606	0.154
Memory-Ki67+CD4+	0.183	-0.373	0.636	0.183	0.100	0.347	0.567	-0.267
<i>Sig.</i>	0.381	0.439	0.099	0.898	0.606	0.898	0.187	0.265
Effector-CD4+	-0.133	-0.119	-0.377	-0.550	0.700*	0.055	0.250	0.567
<i>Sig.</i>	0.286	0.454	0.460	0.637	0.332	0.010	0.516	0.606
Effector-IFNγ+CD4+	0.441	0.103	0.511	0.373	-0.559	0.539	-0.254	-0.746*
<i>Sig.</i>	0.574	0.726	0.622	0.412	0.841	0.093	0.119	0.134
Effector-Ki67+CD4+	0.410	-0.017	0.748*	0.293	-0.427	0.312	0.025	-0.435
<i>Sig.</i>	0.765	0.398	0.668	0.224	0.865	0.067	0.700	0.732
Temra-CD4+	-0.417	-0.678*	0.293	0.317	0.150	-0.164	0.650	0.267
<i>Sig.</i>	0.020	0.859	0.036	0.732	0.077	0.265	0.308	0.700
Temra-IFNγ+CD4+	-0.018	0.130	0.550	0.511	-0.292	0.400	0.000	-0.639
<i>Sig.</i>	0.342	0.745	0.252	0.635	0.515	0.864	0.651	0.898
Temra-Ki67+CD4+	-0.009	-0.221	0.638	0.453	-0.122	0.391	0.279	-0.557
<i>Sig.</i>	0.460	0.192	0.831	0.016	0.286	0.516	0.286	0.042

CD69+CD8+	0.477	0.281	0.147	-0.335	-0.075	0.458	-0.753*	-0.544
Sig.	0.050	0.721	0.099	0.187	0.036	0.516	0.516	0.765
IFNγ+CD8+	-0.033	0.458	-0.251	0.050	-0.317	-0.037	-0.450	0.117
Sig.	0.516	0.789	0.099	0.732	0.637	0.932	0.332	0.966
Ki67+CD8+	0.417	0.000	0.619	-0.317	0.250	0.183	0.383	0.200
Sig.	0.831	0.286	0.381	0.265	0.606	0.286	0.286	0.025
Memory-CD8+	-0.217	-0.288	-0.561	0.017	0.167	0.237	-0.150	-0.283
Sig.	0.042	0.066	0.187	0.932	0.067	0.036	0.966	0.932
Memory-IFNγ+CD8+	-0.218	0.416	-0.262	0.104	-0.035	0.086	-0.104	0.122
Sig.	0.332	0.467	0.879	0.538	0.218	0.573	0.839	0.332
Memory-Ki67+CD8+	0.333	-0.356	0.611	0.367	-0.417	0.183	0.433	-0.067
Sig.	0.798	0.087	0.576	0.099	0.546	0.205	0.013	0.000
Effector-CD8+	-0.383	0.186	-0.510	-0.300	0.517	-0.274	0.217	0.600
Sig.	0.668	0.841	0.765	0.765	0.831	0.798	0.700	0.356
Effector-IFNγ+CD8+	-0.200	0.434	-0.577	0.191	-0.209	0.143	-0.313	-0.052
Sig.	0.308	0.865	0.217	0.217	0.178	0.416	0.571	0.743
Effector-Ki67+CD8+	0.483	0.017	0.611	-0.167	-0.050	0.164	0.133	-0.033
Sig.	0.966	0.704	0.700	0.381	0.865	0.637	0.067	0.406
Temra-CD8+	1.000	0.102	0.092	-0.383	-0.383	0.566	-0.300	-0.017
Sig.		0.221	0.020	0.187	0.000	0.606	0.865	0.732
Temra-IFNγ+CD8+	0.102	1.000	-0.136	-0.170	-0.034	0.149	-0.644	-0.305
Sig.	0.221		1.000	0.112	0.141	0.497	0.286	0.183
Temra-Ki67+CD8+	0.092	-0.136	1.000	0.042	0.008	-0.128	0.176	-0.050
Sig.	0.020	1.000		0.865	0.067	0.765	0.966	1.000
Perforin+CD8+	-0.383	-0.170	0.042	1.000	-0.583	0.018	0.317	-0.500
Sig.	0.187	0.112	0.865		0.067	0.406	0.433	0.170
Granzyme B+CD8+	-0.383	-0.034	0.008	-0.583	1.000	-0.183	0.217	0.333
Sig.	0.000	0.141	0.067	0.067		0.732	0.966	0.606
IFNγ+CD16+	0.566	0.149	-0.128	0.018	-0.183	1.000	-0.146	-0.566
Sig.	0.606	0.497	0.765	0.406	0.732		0.170	0.112
Perforin+CD16+	-0.300	-0.644	0.176	0.317	0.217	-0.146	1.000	0.333
Sig.	0.865	0.286	0.966	0.433	0.966	0.170		0.002
Granzyme B+CD16+	-0.017	-0.305	-0.050	-0.500	0.333	-0.566	0.333	1.000
Sig.	0.732	0.183	1.000	0.170	0.606	0.112	0.002	

Notes to supplementary table 13: Significance is given by * p<0.05 and **p<0.01 (Spearman rank correlation).

Supplementary Table 14. Correlation coefficient and significance (Sig.) of cytokines in patients on mAb

		Stimulation											IL-22
		IL-5	IL-13	IL-2	IL-6	IL-9	IL-10	IFN γ	TNF α	IL-17A	IL-17F	IL-4	
Spike Stimulation	IL-5	1.00	0.167	0.050	0.067	-0.017	0.533	0.30	0.30	0.583	0.150	-0.250	0.483
	<i>Sig.</i>		0.668	0.898	0.865	0.966	0.139	0.433	0.433	0.099	0.70	0.516	0.187
	IL-13	0.167	1.00	0.70*	-0.150	-0.450	0.40	0.40	0.650	0.583	0.517	0.433	0.533
	<i>Sig.</i>	0.668		0.036	0.70	0.224	0.286	0.286	0.058	0.099	0.154	0.244	0.139
	IL-2	0.050	0.70*	1.00	-0.017	0.133	0.283	0.550	0.650	0.650	0.633	0.283	0.583
	<i>Sig.</i>	0.898	0.036		0.966	0.732	0.460	0.125	0.058	0.058	0.067	0.460	0.099
	IL-6	0.067	-0.150	-0.017	1.00	0.317	0.50	0.533	0.567	0.433	0.617	0.333	0.467
	<i>Sig.</i>	0.865	0.70	0.966		0.406	0.170	0.139	0.112	0.244	0.077	0.381	0.205
	IL-9	-0.017	-0.450	0.133	0.317	1.00	-0.333	0.183	-0.033	-0.050	-0.10	0.083	-0.183
	<i>Sig.</i>	0.966	0.224	0.732	0.406		0.381	0.637	0.932	0.898	0.798	0.831	0.637
	IL-10	0.533	0.40	0.283	0.50	-0.333	1.00	0.683*	0.717*	0.817**	0.783*	-0.033	0.850**
	<i>Sig.</i>	0.139	0.286	0.460	0.170	0.381		0.042	0.030	0.07	0.013	0.932	0.04
	IFNγ	0.30	0.40	0.550	0.533	0.183	0.683*	1.00	0.80**	0.80**	0.683*	0.067	0.717*
	<i>Sig.</i>	0.433	0.286	0.125	0.139	0.637	0.042		0.010	0.010	0.042	0.865	0.030
	TNFα	0.30	0.650	0.650	0.567	-0.033	0.717*	0.80**	1.00	0.90**	0.867**	0.333	0.883**
	<i>Sig.</i>	0.433	0.058	0.058	0.112	0.932	0.030	0.010		0.01	0.02	0.381	0.02
	IL-17A	0.583	0.583	0.650	0.433	-0.050	0.817**	0.80**	0.90**	1.00	0.833**	0.10	0.967**
	<i>Sig.</i>	0.099	0.099	0.058	0.244	0.898	0.07	0.010	0.01		0.05	0.798	0.00
	IL-17F	0.150	0.517	0.633	0.617	-0.10	0.783*	0.683*	0.867**	0.833**	1.00	0.367	0.883**
	<i>Sig.</i>	0.70	0.154	0.067	0.077	0.798	0.013	0.042	0.02	0.05		0.332	0.02
IL-4	-0.250	0.433	0.283	0.333	0.083	-0.033	0.067	0.333	0.10	0.367	1.00	0.050	
<i>Sig.</i>	0.516	0.244	0.460	0.381	0.831	0.932	0.865	0.381	0.798	0.332		0.898	
No stimulation	IL-22	0.483	0.533	0.583	0.467	-0.183	0.850**	0.717*	0.883**	0.967**	0.883**	0.050	1.00
	<i>Sig.</i>	0.187	0.139	0.099	0.205	0.637	0.04	0.030	0.02	0.00	0.02	0.898	
	IL-5	0.126	0.787*	0.912**	0.042	0.075	0.402	0.720*	0.711*	0.669*	0.603	0.326	0.552
	<i>Sig.</i>	0.748	0.012	0.01	0.915	0.847	0.284	0.029	0.032	0.049	0.086	0.391	0.123
	IL-13	-0.529	-0.128	-0.219	0.475	-0.274	0.128	0.128	0.201	-0.018	0.274	0.037	0.164
	<i>Sig.</i>	0.143	0.743	0.571	0.197	0.476	0.743	0.743	0.604	0.963	0.476	0.926	0.673
	IL-2	0.479	-0.091	0.046	-0.388	0.091	0.137	0.297	-0.160	0.137	-0.274	-0.730*	0.023
	<i>Sig.</i>	0.192	0.815	0.907	0.302	0.815	0.725	0.438	0.681	0.725	0.476	0.025	0.954
	IL-6	-0.186	-0.661	-0.339	0.203	0.475	-0.305	0.017	-0.170	-0.254	-0.339	-0.542	-0.220
	<i>Sig.</i>	0.631	0.053	0.372	0.60	0.197	0.425	0.965	0.663	0.509	0.372	0.131	0.569
	IL-9	-0.09	-0.385	-0.324	0.114	0.00	0.096	0.315	-0.157	-0.017	-0.149	-0.533	0.00
	<i>Sig.</i>	0.982	0.307	0.396	0.771	1.00	0.806	0.409	0.686	0.964	0.703	0.139	1.00
	IL-10	-0.217	-0.467	-0.033	0.450	0.483	0.033	0.483	0.117	0.083	0.083	-0.383	0.10
	<i>Sig.</i>	0.576	0.205	0.932	0.224	0.187	0.932	0.187	0.765	0.831	0.831	0.308	0.798
	IFNγ	0.017	-0.153	0.017	-0.102	0.170	0.051	0.271	-0.271	-0.051	-0.085	-0.119	-0.153
	<i>Sig.</i>	0.965	0.695	0.965	0.795	0.663	0.897	0.480	0.480	0.897	0.828	0.761	0.695
	TNFα	-0.297	0.297	0.593	0.639	0.297	0.320	0.730*	0.707*	0.525	0.730*	0.434	0.525
<i>Sig.</i>	0.438	0.438	0.092	0.064	0.438	0.402	0.025	0.033	0.147	0.025	0.244	0.147	
IL-17A	-0.137	0.137	0.274	0.548	0.137	0.274	0.548	0.411	0.411	0.548	0.411	0.411	

<i>Sig.</i>	0.725	0.725	0.476	0.127	0.725	0.476	0.127	0.272	0.272	0.127	0.272	0.272
IL-17F	0.548	0.548	0.411	-0.411	-0.548	0.548	0.274	0.274	0.548	0.274	-0.411	0.548
<i>Sig.</i>	0.127	0.127	0.272	0.272	0.127	0.127	0.476	0.476	0.127	0.476	0.272	0.127
IL-4	-0.119	-0.208	0.238	0.386	0.663	0.030	0.673*	0.218	0.188	0.129	-0.099	0.079
<i>Sig.</i>	0.761	0.591	0.538	0.305	0.051	0.940	0.047	0.573	0.628	0.741	0.80	0.839
IL-22	0.00	0.113	0.322	-0.540	-0.070	-0.322	-0.505	-0.174	-0.052	-0.087	-0.122	0.09
<i>Sig.</i>	1.00	0.772	0.398	0.134	0.859	0.398	0.166	0.654	0.894	0.824	0.755	0.982

Supplementary Table 14 (continued). Correlation coefficient and significance (Sig.) of cytokines in patients on mAb

		No stimulation											
		IL-5	IL-13	IL-2	IL-6	IL-9	IL-10	IFN γ	TNF α	IL-17A	IL-17F	IL-4	
Spike Stimulation	IL-5	0.126	-0.529	0.479	-0.186	-0.009	-0.217	0.017	-0.297	-0.137	0.548	-0.119	0.000
	<i>Sig.</i>	0.748	0.143	0.192	0.631	0.982	0.576	0.965	0.438	0.725	0.127	0.761	1.000
	IL-13	0.787*	-0.128	-0.091	-0.661	-0.385	-0.467	-0.153	0.297	0.137	0.548	-0.208	0.113
	<i>Sig.</i>	0.012	0.743	0.815	0.053	0.307	0.205	0.695	0.438	0.725	0.127	0.591	0.772
	IL-2	0.912**	-0.219	0.046	-0.339	-0.324	-0.033	0.017	0.593	0.274	0.411	0.238	0.322
	<i>Sig.</i>	0.001	0.571	0.907	0.372	0.396	0.932	0.965	0.092	0.476	0.272	0.538	0.398
	IL-6	0.042	0.475	-0.388	0.203	0.114	0.450	-0.102	0.639	0.548	-0.411	0.386	-0.540
	<i>Sig.</i>	0.915	0.197	0.302	0.600	0.771	0.224	0.795	0.064	0.127	0.272	0.305	0.134
	IL-9	0.075	-0.274	0.091	0.475	0.000	0.483	0.170	0.297	0.137	-0.548	0.663	-0.070
	<i>Sig.</i>	0.847	0.476	0.815	0.197	1.000	0.187	0.663	0.438	0.725	0.127	0.051	0.859
	IL-10	0.402	0.128	0.137	-0.305	0.096	0.033	0.051	0.320	0.274	0.548	0.030	-0.322
	<i>Sig.</i>	0.284	0.743	0.725	0.425	0.806	0.932	0.897	0.402	0.476	0.127	0.940	0.398
	IFNγ	0.720*	0.128	0.297	0.017	0.315	0.483	0.271	0.730*	0.548	0.274	0.673*	-0.505
	<i>Sig.</i>	0.029	0.743	0.438	0.965	0.409	0.187	0.480	0.025	0.127	0.476	0.047	0.166
	TNFα	0.711*	0.201	-0.160	-0.170	-0.157	0.117	-0.271	0.707*	0.411	0.274	0.218	-0.174
	<i>Sig.</i>	0.032	0.604	0.681	0.663	0.686	0.765	0.480	0.033	0.272	0.476	0.573	0.654
	IL-17A	0.669*	-0.018	0.137	-0.254	-0.017	0.083	-0.051	0.525	0.411	0.548	0.188	-0.052
	<i>Sig.</i>	0.049	0.963	0.725	0.509	0.964	0.831	0.897	0.147	0.272	0.127	0.628	0.894
	IL-17F	0.603	0.274	-0.274	-0.339	-0.149	0.083	-0.085	0.730*	0.548	0.274	0.129	-0.087
	<i>Sig.</i>	0.086	0.476	0.476	0.372	0.703	0.831	0.828	0.025	0.127	0.476	0.741	0.824
IL-4	0.326	0.037	-0.730*	-0.542	-0.533	-0.383	-0.119	0.434	0.411	-0.411	-0.099	-0.122	
<i>Sig.</i>	0.391	0.926	0.025	0.131	0.139	0.308	0.761	0.244	0.272	0.272	0.800	0.755	
No stimulation	IL-22	0.552	0.164	0.023	-0.220	0.000	0.100	-0.153	0.525	0.411	0.548	0.079	0.009
	<i>Sig.</i>	0.123	0.673	0.954	0.569	1.000	0.798	0.695	0.147	0.272	0.127	0.839	0.982
	IL-5	1.000	-0.238	0.160	-0.383	-0.224	-0.025	0.145	0.596	0.275	0.413	0.348	-0.031
	<i>Sig.</i>		0.537	0.680	0.309	0.563	0.949	0.710	0.090	0.474	0.270	0.359	0.938
	IL-13	-0.238	1.000	-0.450	0.353	0.412	0.493	-0.223	0.475	0.450	-0.300	0.130	-0.315
	<i>Sig.</i>	0.537		0.224	0.352	0.271	0.178	0.564	0.196	0.224	0.433	0.739	0.410
	IL-2	0.160	-0.450	1.000	0.186	0.527	0.274	0.557	-0.281	-0.188	0.563	0.380	-0.107
	<i>Sig.</i>	0.680	0.224		0.632	0.145	0.476	0.119	0.463	0.629	0.115	0.314	0.784
IL-6	-0.383	0.353	0.186	1.000	0.445	0.780*	-0.190	0.070	-0.139	-0.418	0.493	-0.142	
<i>Sig.</i>	0.309	0.352	0.632		0.230	0.013	0.625	0.859	0.721	0.263	0.177	0.716	

IL-9	-0.224	0.412	0.527	0.445	1.000	0.717*	0.569	0.120	0.431	0.072	0.556	-0.493
<i>Sig.</i>	0.563	0.271	0.145	0.230		0.030	0.110	0.759	0.247	0.854	0.120	0.177
IL-10	-0.025	0.493	0.274	0.780*	0.717*	1.000	0.254	0.525	0.411	-0.274	0.842**	-0.409
<i>Sig.</i>	0.949	0.178	0.476	0.013	0.030		0.509	0.147	0.272	0.476	0.004	0.274
IFNγ	0.145	-0.223	0.557	-0.190	0.569	0.254	1.000	0.070	0.418	0.139	0.504	-0.390
<i>Sig.</i>	0.710	0.564	0.119	0.625	0.110	0.509		0.859	0.263	0.721	0.167	0.300
TNFα	0.596	0.475	-0.281	0.070	0.120	0.525	0.070	1.000	0.750*	-0.188	0.624	-0.298
<i>Sig.</i>	0.090	0.196	0.463	0.859	0.759	0.147	0.859		0.020	0.629	0.073	0.436
IL-17A	0.275	0.450	-0.188	-0.139	0.431	0.411	0.418	0.750*	1.000	-0.125	0.488	-0.358
<i>Sig.</i>	0.474	0.224	0.629	0.721	0.247	0.272	0.263	0.020		0.749	0.183	0.345
IL-17F	0.413	-0.300	0.563	-0.418	0.072	-0.274	0.139	-0.188	-0.125	1.000	-0.244	0.286
<i>Sig.</i>	0.270	0.433	0.115	0.263	0.854	0.476	0.721	0.629	0.749		0.527	0.456
IL-4	0.348	0.130	0.380	0.493	0.556	0.842**	0.504	0.624	0.488	-0.244	1.000	-0.517
<i>Sig.</i>	0.359	0.739	0.314	0.177	0.120	0.004	0.167	0.073	0.183	0.527		0.154
IL-22	-0.031	-0.315	-0.107	-0.142	-0.493	-0.409	-0.390	-0.298	-0.358	0.286	-0.517	1.000
<i>Sig.</i>	0.938	0.410	0.784	0.716	0.177	0.274	0.300	0.436	0.345	0.456	0.154	

Notes to supplementary table 14: Significance is given by * $p < 0.05$ and ** $p < 0.01$ (Spearman rank correlation).

Supplementary Table 15. Correlation coefficient and significance (Sig.) of cytokines in patients on conv

		Stimulation											IL-22
		IL-5	IL-13	IL-2	IL-6	IL-9	IL-10	IFN γ	TNF α	IL-17A	IL-17F	IL-4	
Spike Stimulation	IL-5	1.000	0.583	0.500	0.467	-0.800**	0.200	0.200	0.350	0.517	0.467	0.433	0.767*
	<i>Sig.</i>		0.099	0.170	0.205	0.010	0.606	0.606	0.356	0.154	0.205	0.244	0.016
	IL-13	0.583	1.000	0.617	0.650	-0.500	0.667*	0.400	0.450	0.517	0.683*	0.750*	0.733*
	<i>Sig.</i>	0.099		0.077	0.058	0.170	0.050	0.286	0.224	0.154	0.042	0.020	0.025
	IL-2	0.500	0.617	1.000	0.333	-0.583	0.800**	0.650	0.500	0.600	0.933**	0.583	0.733*
	<i>Sig.</i>	0.170	0.077		0.381	0.099	0.010	0.058	0.170	0.088	0.000	0.099	0.025
	IL-6	0.467	0.650	0.333	1.000	-0.317	0.433	0.117	0.733*	0.783*	0.467	0.250	0.700*
	<i>Sig.</i>	0.205	0.058	0.381		0.406	0.244	0.765	0.025	0.013	0.205	0.516	0.036
	IL-9	-0.800**	-0.500	-0.583	-0.317	1.000	-0.350	-0.317	-0.283	-0.333	-0.517	-0.167	-0.650
	<i>Sig.</i>	0.010	0.170	0.099	0.406		0.356	0.406	0.460	0.381	0.154	0.668	0.058
	IL-10	0.200	0.667*	0.800**	0.433	-0.350	1.000	0.600	0.500	0.483	0.733*	0.467	0.683*
	<i>Sig.</i>	0.606	0.050	0.010	0.244	0.356		0.088	0.170	0.187	0.025	0.205	0.042
	IFNγ	0.200	0.400	0.650	0.117	-0.317	0.600	1.000	0.650	0.550	0.683*	0.300	0.500
	<i>Sig.</i>	0.606	0.286	0.058	0.765	0.406	0.088		0.058	0.125	0.042	0.433	0.170
	TNFα	0.350	0.450	0.500	0.733*	-0.283	0.500	0.650	1.000	0.950**	0.667*	0.200	0.650
	<i>Sig.</i>	0.356	0.224	0.170	0.025	0.460	0.170	0.058		0.000	0.050	0.606	0.058
	IL-17A	0.517	0.517	0.600	0.783*	-0.333	0.483	0.550	0.950**	1.000	0.733*	0.350	0.750*
	<i>Sig.</i>	0.154	0.154	0.088	0.013	0.381	0.187	0.125	0.000		0.025	0.356	0.020
IL-17F	0.467	0.683*	0.933**	0.467	-0.517	0.733*	0.683*	0.667*	0.733*	1.000	0.650	0.667*	
<i>Sig.</i>	0.205	0.042	0.000	0.205	0.154	0.025	0.042	0.050	0.025		0.058	0.050	
IL-4	0.433	0.750*	0.583	0.250	-0.167	0.467	0.300	0.200	0.350	0.650	1.000	0.417	
<i>Sig.</i>	0.244	0.020	0.099	0.516	0.668	0.205	0.433	0.606	0.356	0.058		0.265	
No stimulation	IL-22	0.767*	0.733*	0.733*	0.700*	-0.650	0.683*	0.500	0.650	0.750*	0.667*	0.417	1.000
	<i>Sig.</i>	0.016	0.025	0.025	0.036	0.058	0.042	0.170	0.058	0.020	0.050	0.265	
	IL-5	0.661	0.559	0.339	0.644	-0.407	0.356	-0.102	0.203	0.390	0.203	0.271	0.780*
	<i>Sig.</i>	0.053	0.117	0.372	0.061	0.277	0.347	0.795	0.600	0.300	0.600	0.480	0.013
	IL-13	-0.390	-0.170	-0.237	0.441	0.424	0.085	-0.458	0.102	0.102	-0.237	-0.356	-0.034
	<i>Sig.</i>	0.300	0.663	0.539	0.235	0.256	0.828	0.215	0.795	0.795	0.539	0.347	0.931
	IL-2	0.322	-0.186	-0.288	0.102	-0.407	-0.271	-0.051	0.051	-0.017	-0.390	-0.644	0.220
	<i>Sig.</i>	0.398	0.631	0.452	0.795	0.277	0.480	0.897	0.897	0.965	0.300	0.061	0.569
	IL-6	0.467	-0.117	-0.033	-0.050	-0.383	-0.017	-0.283	-0.217	-0.133	-0.267	-0.167	0.283
	<i>Sig.</i>	0.205	0.765	0.932	0.898	0.308	0.966	0.460	0.576	0.732	0.488	0.668	0.460
	IL-9	0.228	-0.297	-0.158	0.317	-0.277	-0.139	-0.307	0.248	0.228	-0.158	-0.495	0.119
	<i>Sig.</i>	0.556	0.438	0.684	0.406	0.470	0.722	0.422	0.521	0.556	0.684	0.175	0.761
	IL-10	0.667*	0.333	0.167	0.500	-0.317	0.033	-0.267	0.067	0.300	0.033	0.167	0.617
	<i>Sig.</i>	0.050	0.381	0.668	0.170	0.406	0.932	0.488	0.865	0.433	0.932	0.668	0.077
	IFNγ	-0.117	-0.233	-0.517	-0.150	0.433	-0.333	-0.417	-0.433	-0.367	-0.683*	-0.233	-0.083
	<i>Sig.</i>	0.765	0.546	0.154	0.700	0.244	0.381	0.265	0.244	0.332	0.042	0.546	0.831
	TNFα	0.109	0.010	-0.287	0.574	0.040	-0.109	-0.693*	0.010	0.099	-0.287	-0.238	0.129
	<i>Sig.</i>	0.780	0.980	0.454	0.106	0.919	0.780	0.038	0.980	0.800	0.454	0.538	0.741
IL-17A	0.495	0.059	0.109	0.406	-0.188	0.129	-0.218	0.158	0.317	-0.069	-0.050	0.564	

	<i>Sig.</i>	0.175	0.879	0.780	0.278	0.628	0.741	0.573	0.684	0.406	0.859	0.899	0.113
	IL-17F	0.000	-0.411	-0.548	0.274	0.274	-0.411	-0.411	0.137	0.137	-0.548	-0.548	0.000
	<i>Sig.</i>	1.000	0.272	0.127	0.476	0.476	0.272	0.272	0.725	0.725	0.127	0.127	1.000
	IL-4	0.279	0.148	0.157	0.592	-0.139	0.296	-0.209	0.235	0.348	0.000	-0.174	0.574
	<i>Sig.</i>	0.468	0.704	0.687	0.093	0.721	0.439	0.590	0.543	0.359	1.000	0.654	0.106
	IL-22	0.017	-0.235	-0.453	0.209	-0.078	-0.435	-0.844**	-0.331	-0.270	-0.453	-0.444	-0.226
	<i>Sig.</i>	0.965	0.543	0.221	0.590	0.841	0.242	0.004	0.385	0.483	0.221	0.231	0.558

Supplementary Table 15 (continued). Correlation coefficient and significance (Sig.) of cytokines in patients on conv

		No stimulation											
		IL-5	IL-13	IL-2	IL-6	IL-9	IL-10	IFN γ	TNF α	IL-17A	IL-17F	IL-4	IL-22
Spike Stimulation	IL-5	0.661	-0.390	0.322	0.467	0.228	0.667*	-0.117	0.109	0.495	0.000	0.279	0.017
	<i>Sig.</i>	0.053	0.300	0.398	0.205	0.556	0.050	0.765	0.780	0.175	1.000	0.468	0.965
	IL-13	0.559	-0.170	-0.186	-0.117	-0.297	0.333	-0.233	0.010	0.059	-0.411	0.148	-0.235
	<i>Sig.</i>	0.117	0.663	0.631	0.765	0.438	0.381	0.546	0.980	0.879	0.272	0.704	0.543
	IL-2	0.339	-0.237	-0.288	-0.033	-0.158	0.167	-0.517	-0.287	0.109	-0.548	0.157	-0.453
	<i>Sig.</i>	0.372	0.539	0.452	0.932	0.684	0.668	0.154	0.454	0.780	0.127	0.687	0.221
	IL-6	0.644	0.441	0.102	-0.050	0.317	0.500	-0.150	0.574	0.406	0.274	0.592	0.209
	<i>Sig.</i>	0.061	0.235	0.795	0.898	0.406	0.170	0.700	0.106	0.278	0.476	0.093	0.590
	IL-9	-0.407	0.424	-0.407	-0.383	-0.277	-0.317	0.433	0.040	-0.188	0.274	-0.139	-0.078
	<i>Sig.</i>	0.277	0.256	0.277	0.308	0.470	0.406	0.244	0.919	0.628	0.476	0.721	0.841
	IL-10	0.356	0.085	-0.271	-0.017	-0.139	0.033	-0.333	-0.109	0.129	-0.411	0.296	-0.435
	<i>Sig.</i>	0.347	0.828	0.480	0.966	0.722	0.932	0.381	0.780	0.741	0.272	0.439	0.242
	IFNγ	-0.102	-0.458	-0.051	-0.283	-0.307	-0.267	-0.417	-0.693*	-0.218	-0.411	-0.209	-0.844**
	<i>Sig.</i>	0.795	0.215	0.897	0.460	0.422	0.488	0.265	0.038	0.573	0.272	0.590	0.004
	TNFα	0.203	0.102	0.051	-0.217	0.248	0.067	-0.433	0.010	0.158	0.137	0.235	-0.331
	<i>Sig.</i>	0.600	0.795	0.897	0.576	0.521	0.865	0.244	0.980	0.684	0.725	0.543	0.385
	IL-17A	0.390	0.102	-0.017	-0.133	0.228	0.300	-0.367	0.099	0.317	0.137	0.348	-0.270
	<i>Sig.</i>	0.300	0.795	0.965	0.732	0.556	0.433	0.332	0.800	0.406	0.725	0.359	0.483
	IL-17F	0.203	-0.237	-0.390	-0.267	-0.158	0.033	-0.683*	-0.287	-0.069	-0.548	0.000	-0.453
	<i>Sig.</i>	0.600	0.539	0.300	0.488	0.684	0.932	0.042	0.454	0.859	0.127	1.000	0.221
IL-4	0.271	-0.356	-0.644	-0.167	-0.495	0.167	-0.233	-0.238	-0.050	-0.548	-0.174	-0.444	
<i>Sig.</i>	0.480	0.347	0.061	0.668	0.175	0.668	0.546	0.538	0.899	0.127	0.654	0.231	
No stimulation	IL-22	0.780*	-0.034	0.220	0.283	0.119	0.617	-0.083	0.129	0.564	0.000	0.574	-0.226
	<i>Sig.</i>	0.013	0.931	0.569	0.460	0.761	0.077	0.831	0.741	0.113	1.000	0.106	0.558
	IL-5	1.000	0.276	0.293	0.475	0.161	0.932**	0.390	0.564	0.796*	0.279	0.823**	0.230
	<i>Sig.</i>		0.472	0.444	0.197	0.679	0.000	0.300	0.114	0.010	0.468	0.006	0.551
	IL-13	0.276	1.000	-0.017	-0.017	0.383	0.220	0.271	0.786*	0.383	0.557	0.682*	0.513
	<i>Sig.</i>	0.472		0.965	0.965	0.309	0.569	0.480	0.012	0.309	0.119	0.043	0.157
	IL-2	0.293	-0.017	1.000	0.525	0.504	0.356	0.339	0.242	0.413	0.557	0.372	0.319
	<i>Sig.</i>	0.444	0.965		0.146	0.167	0.347	0.372	0.531	0.269	0.119	0.324	0.403
IL-6	0.475	-0.017	0.525	1.000	0.574	0.500	0.350	0.347	0.753*	0.411	0.461	0.287	
<i>Sig.</i>	0.197	0.965	0.146		0.106	0.170	0.356	0.361	0.019	0.272	0.211	0.454	

IL-9	0.161	0.383	0.504	0.574	1.000	0.198	-0.129	0.606	0.524	0.651	0.440	0.579
<i>Sig.</i>	0.679	0.309	0.167	0.106		0.610	0.741	0.084	0.148	0.058	0.237	0.102
IL-10	0.932**	0.220	0.356	0.500	0.198	1.000	0.500	0.574	0.822**	0.411	0.766*	0.331
<i>Sig.</i>	0.000	0.569	0.347	0.170	0.610		0.170	0.106	0.007	0.272	0.016	0.385
IFNγ	0.390	0.271	0.339	0.350	-0.129	0.500	1.000	0.307	0.495	0.548	0.426	0.131
<i>Sig.</i>	0.300	0.480	0.372	0.356	0.741	0.170		0.422	0.175	0.127	0.252	0.738
TNFα	0.564	0.786*	0.242	0.347	0.606	0.574	0.307	1.000	0.606	0.651	0.734*	0.817**
<i>Sig.</i>	0.114	0.012	0.531	0.361	0.084	0.106	0.422		0.084	0.058	0.024	0.007
IL-17A	0.796*	0.383	0.413	0.753*	0.524	0.822**	0.495	0.606	1.000	0.651	0.858**	0.253
<i>Sig.</i>	0.010	0.309	0.269	0.019	0.148	0.007	0.175	0.084		0.058	0.003	0.511
IL-17F	0.279	0.557	0.557	0.411	0.651	0.411	0.548	0.651	0.651	1.000	0.572	0.429
<i>Sig.</i>	0.468	0.119	0.119	0.272	0.058	0.272	0.127	0.058	0.058		0.107	0.249
IL-4	0.823**	0.682*	0.372	0.461	0.440	0.766*	0.426	0.734*	0.858**	0.572	1.000	0.373
<i>Sig.</i>	0.006	0.043	0.324	0.211	0.237	0.016	0.252	0.024	0.003	0.107		0.323
IL-22	0.230	0.513	0.319	0.287	0.579	0.331	0.131	0.817**	0.253	0.429	0.373	1.000
<i>Sig.</i>	0.551	0.157	0.403	0.454	0.102	0.385	0.738	0.007	0.511	0.249	0.323	

Notes to supplementary table 15: Significance is given by * $p < 0.05$ and ** $p < 0.01$ (Spearman rank correlation).