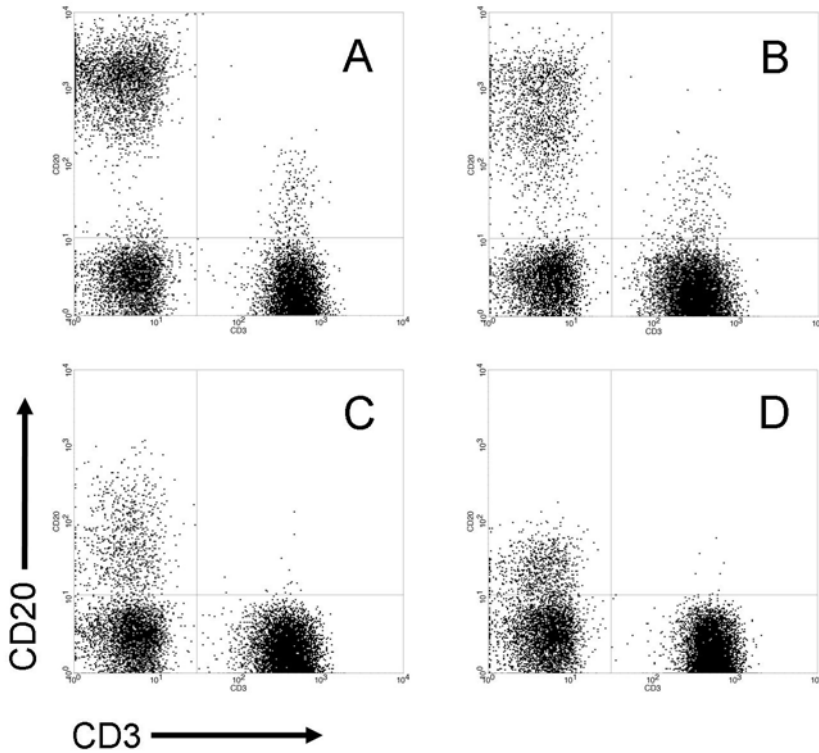
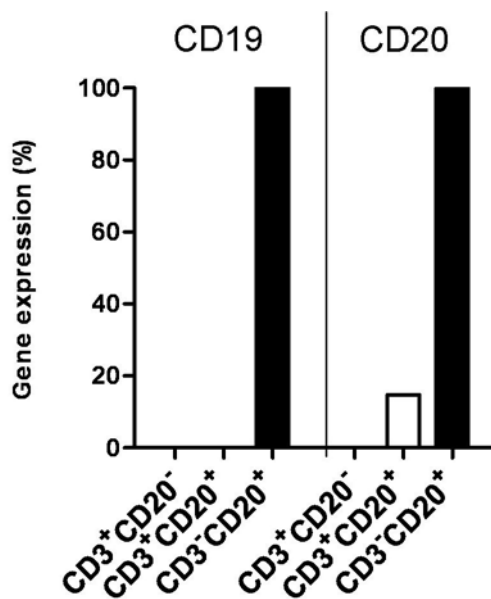


Supplementary Information

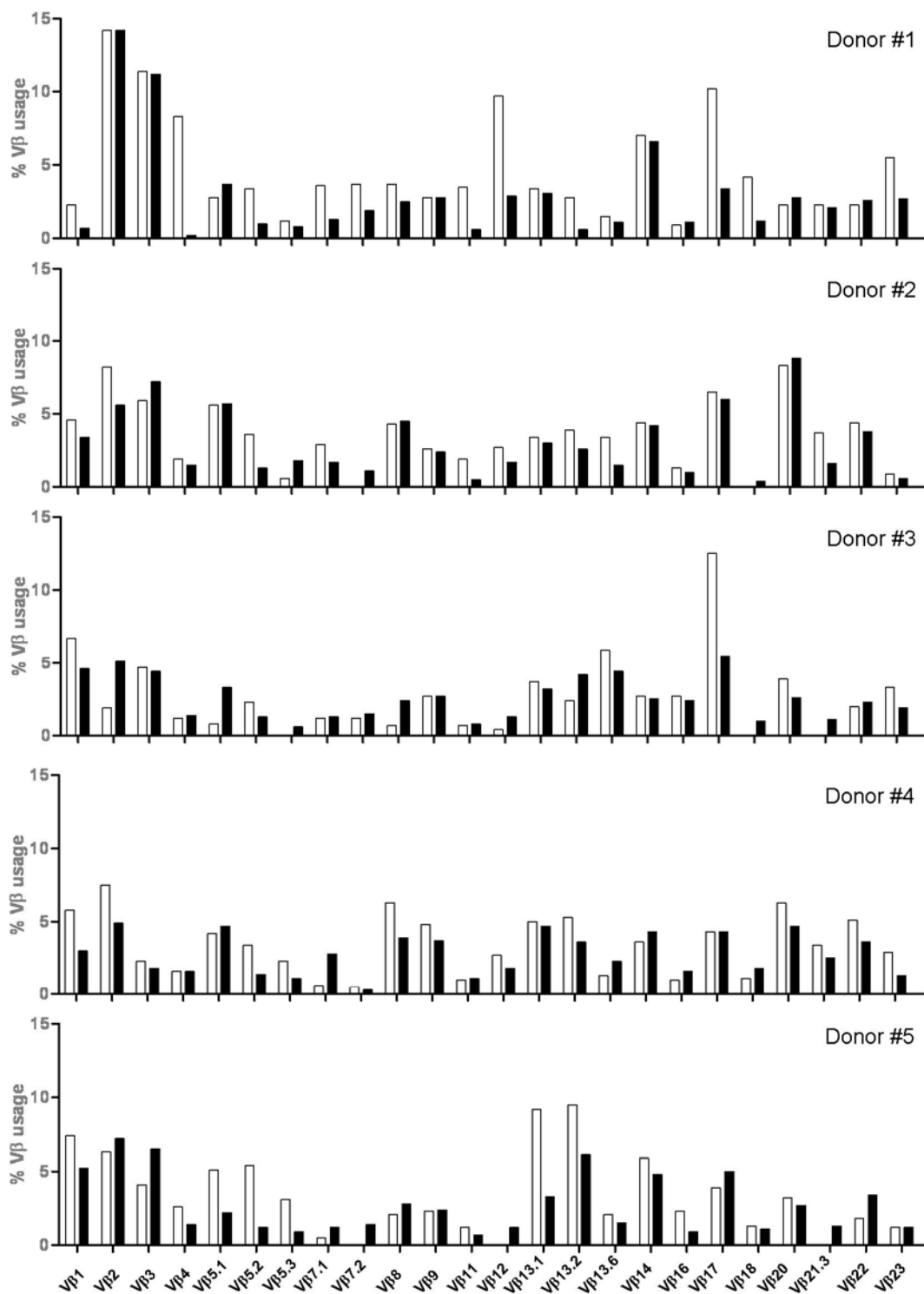


Suppl. Fig. 1: Blocking of CD20 expression in human B and T cells.

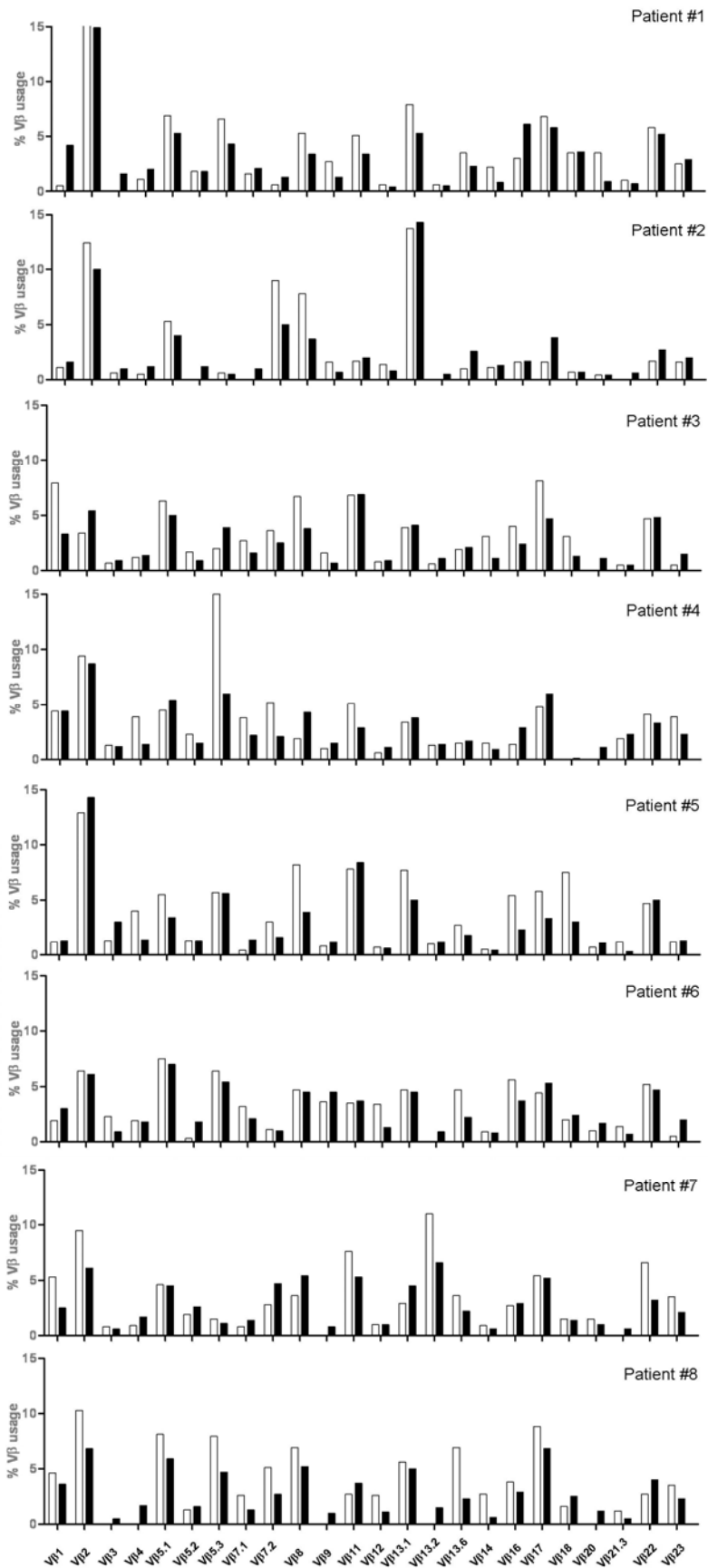
Human PBMC were preincubated with increasing amounts of unlabeled CD20 antibodies or IgG (as control) for 30 min. After washing, cells were stained with CD20PE and CD3PerCP antibodies. A: 20µl IgG control; amount of blocking CD20 antibodies: B= 1µl, C= 10µl, D=20µl



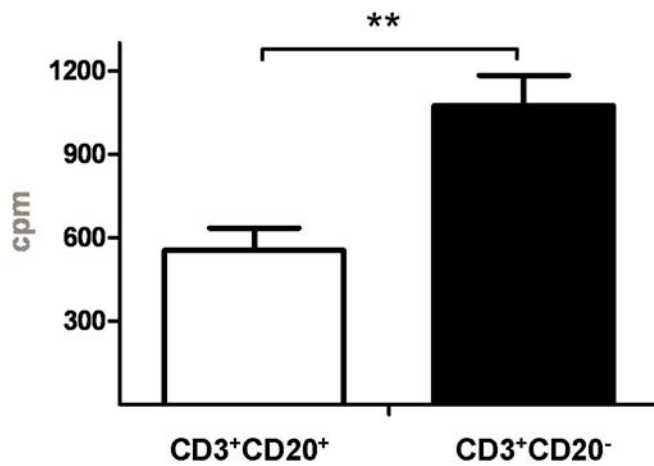
CD19 and CD20 mRNA expression in human T and B cells. Human PBMC were sorted into 3 populations (CD3+CD20+, CD3+CD20- and CD3-CD20+) with a FACSria cell sorter. CD19 and CD20 specific mRNA expression was analyzed by quantitative real time PCR using an iCycler (Biorad, Munich, Germany). Results of three independent experiments are shown.



Suppl. Fig. 3a: Receptor repertoires of α/β T cell populations. PBMC were gated on CD3⁺CD20⁺ and CD3⁺CD20⁻ cells and the usage of V β chains were determined by multicolour flow cytometry. percentages of positive T cells for the different V β chains (as indicated on the x-axis) are depicted for CD20⁺ (white bars) and CD20⁻ T cells (black bars), which were analyzed from peripheral blood of five healthy individuals.



Suppl. Fig. 3b: Receptor repertoires of α/β T cell populations. PBMC were gated on CD3⁺CD20⁺ and CD3⁺CD20⁻ cells and the usage of V β chains were determined by multicolour flow cytometry. Percentages of positive T cells for the different V β chains (as indicated on the x-axis) are depicted for CD20⁺ (white bars) and CD20⁻ T cells (black bars), which were analyzed from peripheral blood of eight RA patients.



Suppl. Fig 4: Proliferative capacity of CD20⁺ and CD20⁻ T lymphocytes. PBMC were sorted into CD3⁺CD20⁺ (white bar) and CD3⁺CD20⁻ (black bar) T cells. Cells were activated by CD3 cross-linking for 72h and H3-thymidine was added 24h before harvesting. Incorporation of the H3-nuclides is given in counts per minute (cpm).

Table 1 Characteristics of RA patients

Patient #	Activity (DAS28)	R F	C C	CR P	CD3 ⁺ CD20 ⁺ T cells (%)
1	3.9	-	-	1.2	0.7
2	3.5	+	+	0.8	1
3	3.7	+	+	1.2	1
4	4.9	+	+	15	1.4
5	5.6	+	+	14.5	0.7
6	6.8	+	+	35.6	0.9
7	6.1	+	-	2	2.4
8	4.4	+	+	1.2	0.5
9	6.1	+	-	5.6	1.3
10	7.2	+	+	9.3	1.2
11	6.2	+	+	11	1.8
12	6.52	-	+	40.7	2.2
13	3.8	-	-	6.8	1.3
14	4.06	-	-	1.4	0.4
15	3.6	+	+	2.7	0.6
16	4.7	+	+	7	2.6
17	3.5	+	+	5.2	0.8
18	6.5	+	-	33.2	0.7
19	3.5	+	+	6.9	1
20	3.9	+	+	118	1.4
21	3.34	+	+	7.4	1.9
22	3.57	+	+	5.4	0.5
23	3.29	+	+	3.8	1.9
24	3.47	+	+	5.1	1.9
25	4.6	+	+	30.6	1.7
26	3.73	+	+	2.2	0.9
27	1.2	+	+	0.8	0.8

Abbr.: DAS28: Disease activity score 28 joints count
 RF: Rheumatoid factor
 CCP: anti-cyclic citrullinated peptide
 CRP: c-reactive protein