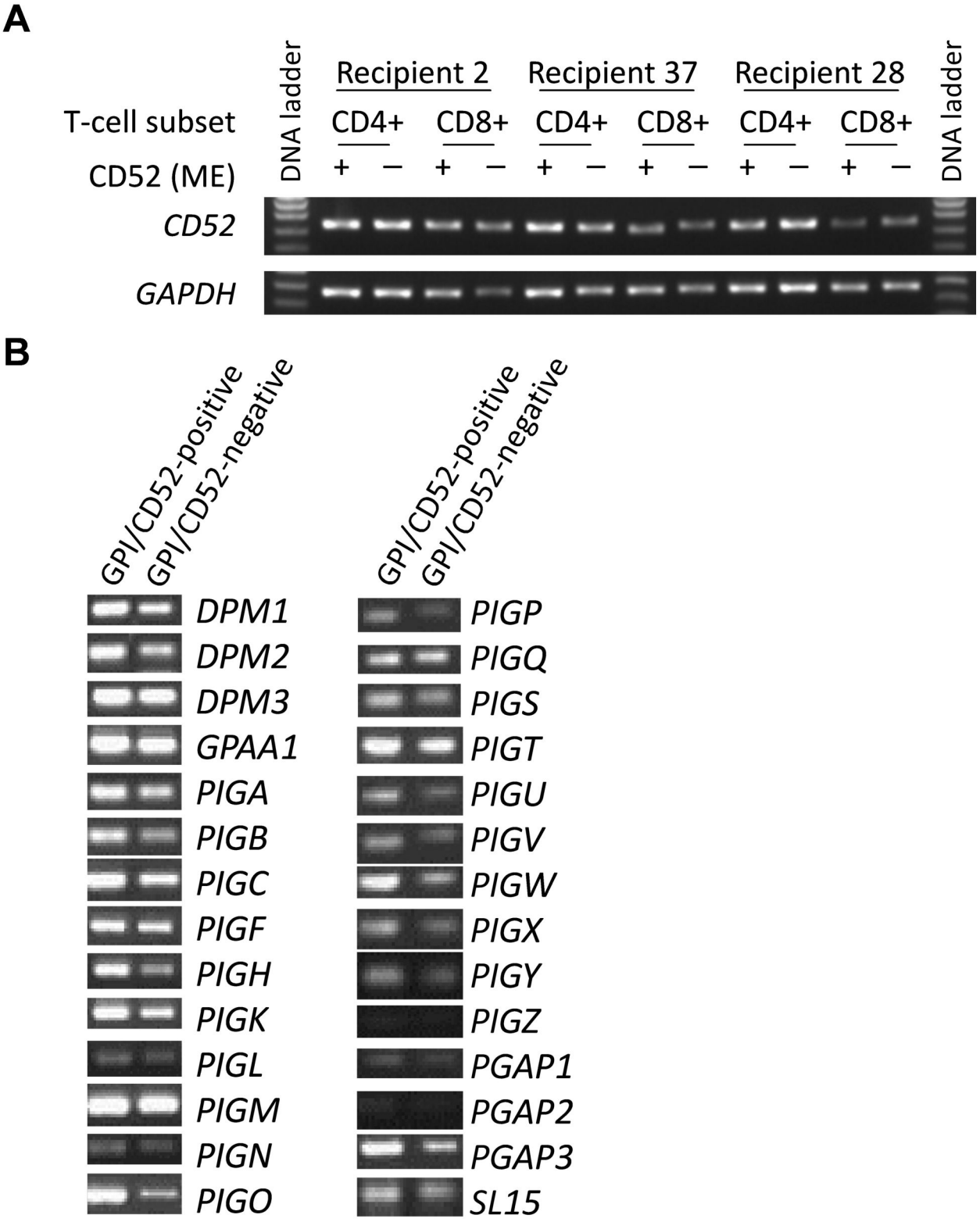
Supplemental Figure S1.



Supplemental Figure Legends

Supplemental Fig S1. No loss of mRNA expression of *CD52* or any of the GPI-anchor synthesis pathway genes in GPI/CD52-negative T cells

(A) Agarose gel electrophoresis results from a representative CD52 mRNA expression analysis of CD4 and CD8 T cells derived from recipients 2, 37, and 28 which were positive (+) or negative (-) for CD52 membrane expression (ME). CD52-negative and CD52-positive CD4 and CD8 T cells were purified by flow cytometric cell sorting, followed by mRNA isolation, cDNA synthesis, and a PCR amplification using specific primers (Supplemental Table 2). Equimolar amounts of cDNA of the CD52-negative and CD52-positive samples were used for PCR amplification. As a control *GAPDH* was amplified. **(B)** Representative example of mRNA expression analysis for the GPI-anchor synthesis pathway genes performed on FACS purified GPI/CD52-negative and GPI/CD52-positive CD4 T cells from recipient 37. GPI/CD52-negative and GPI/CD52-positive CD4 T cells were purified by FACS, followed by mRNA isolation, and cDNA synthesis. PCR amplification was performed using primer sets specifically designed to individually amplify all 28 proteins involved in the GPI-anchor biosynthesis pathway. Equimolar amounts of cDNA were used for each amplification. Depicted is the agarose gel electrophoresis analysis from the resulting amplicons.

Supplemental Table I. Recipient and sample information

	Percentage of CD52-negative cells				Absolute number of circulating cells (10^6 cells/L)								
Recipient	CD3+CD4+	CD3+CD8+	CD19+	CD3-CD16+	CD3+CD4+	CD3+CD8+	CD19+	CD3-CD16+	Diagnosis	Conditioning	Thymoglobulin	Kinship donor	Graft source	Days post-transplantation
1	98,15	97,48		ND	5	35	0	5	Angioimmunoblastic T-NHL	NMA	2mg/kg	UD	MPB	39
2	96,36	76,41		ND	130	995	16	1116	B-ALL	MA		UD	MPB	43
3	94,96	90,02			157	1352	246	383	AML	NMA		SIB	MPB	42
4	94,54	67,39			441	4	4	12	Lymphoplasmacytic B-NHL	NMA		SIB	MPB	41
5	94,18	91,68			103	35	3	87	SAA	NMA		UD	MPB	40
6	94,09	54,72	88,20	ND	128	43	1	36	MM	NMA		UD	MPB	41
7	93,49	76,86		ND	159	15	5	113	MM	NMA		UD	MPB	35
8	93,29	93,97			112	164	85	555	AML	NMA		UD	MPB	42
9	93,22	49,30		ND	41	3	0	85	AML	NMA		UD	MPB	41
10	93,19	87,69	7,70		132	41	86	244	MM	NMA		UD	MPB	37
11	92,95	86,45		ND	655	14	1	686	Anaplastic diffuse large T-NHL	NMA		UD	MPB	44
12	92,66	68,79		ND	454	396	3	192	Mycosis Fungoides	NMA		UD	MPB	42
13	92,26	74,36		ND	71	5	6	45	AML	MA		UD	MPB	46
14	92,23	66,21			141	21	141	816	T-ALL	MA		SIB	MPB	72
15	92,09	81,24		ND	99	124	36	139	AML	NMA		UD	MPB	45
16	90,36	65,48		ND	45	431	5	337	B-ALL	MA		UD	MPB	42
17	90,09	19,61			66	13	66	176	AML	NMA		SIB	MPB	43
18	89,77	32,00		ND	34	1	0	150	AML	NMA	2mg/kg	UD	MPB	45
19	89,26	93,71			115	79	10	94	Blastic Plasmacytoid dendritic cell neoplasm	NMA		UD	MPB	42
20	89,26	90,77		ND	50	46	0	85	Follicular B-NHL	NMA		SIB	MPB	41
21	89,10	83,83		ND	499	22	63	179	MM	NMA		UD	MPB	42
22	88,99	13,95		ND	5	0	0	27	MM	NMA		UD	MPB	37
23	88,51	68,94			154	264	6	287	AML	NMA		UD	MPB	43
24	88,20	61,61		ND	26	13	87	521	CML	MA		SIB	MPB	42
25	87,49	42,59			225	923	21	813	MM	NMA		UD	MPB	42
26	86,99	2,36			263	821	500	567	CML	MA		SIB	MPB	90
27	85,92	49,47		ND	90	12	113	575	AML	NMA		UD	MPB	45
28	85,54	70,00		ND	103	2	5	46	CML BC	MA		UD	MPB	38
29	85,37	77,91		ND	71	9	34	247	AML	NMA		SIB	MPB	39
30	85,29	0,35			201	381	0	275	Mantle cell B-NHL	NMA		SIB	MPB	42
31	85,04	37,78			73	7	74	141	CML BC	MA		SIB	MPB	48
32	84,94	19,03			160	256	39	498	B-ALL	MA		UD	MPB	42
33	84,53	71,43			86	30	18	398	AML	NMA		UD	MPB	38
34	83,92	35,95			34	339	93	454	AML	NMA		SIB	MPB	40
35	83,86	64,95			191	7	91	56	CML BC	MA		UD	MPB	98
36	83,60	4,86		ND	21	106	1	101	MM	NMA		SIB	MPB	41
37	83,37	66,01			726	2604	340	1396	Peripheral T-NHL NOS	MA		UD	MPB	91
38	83,33	33,63		ND	18	30	4	107	SAA	NMA	2mg/kg	UD	MPB	39
39	83,28	27,51			274	127	61	229	Angioimmunoblastic T-NHL	MA		SIB	MPB	41
40	83,06	27,11			83	46	15	240	MM	NMA		SIB	MPB	40
41	82,66	74,91		ND	167	477	424	715	AML	NMA		SIB	MPB	41
42	82,22	36,50			157	30	30	82	AML	MA		SIB	MPB	42
43	81,94	46,15		ND	8	0	42	80	Hemophagocytic Lymphohistiocytosis	MA		UD	MPB	45
44	81,45	21,53			120	1171	89	619	AML	NMA		SIB	MPB	42
45	81,28	1,67			107	296	1	1193	MDS RAEB-2	MA		SIB	MPB	43
46	81,10	19,79			103	15	0	394	Follicular B-NHL	NMA		SIB	MPB	57
47	81,04	33,33			24	2	1	29	AML	NMA	1mg/kg	UD	MPB	43
48	79,82	1,52			0	0	0	0	AML	NMA		UD	MPB	47
49	77,01	7,54			107	490	10	450	B-CLL	MA		UD	MPB	51
50	76,56	10,27		ND	181	77	105	261	T-ALL	MA		UD	MPB	69
51	75,88	36,41	5,70		112	415	57	212	MM	NMA		SIB	MPB	39
52	75,25	13,74			224	530	81	722	AML	MA		UD	MPB	94
53	74,92	72,00			148	117	7	124	B-CLL	NMA		UD	MPB	59
54	74,51	43,75			17	2	0	82	Double hit B-NHL	MA		UD	MPB	41
55	73,84	13,03		ND	10	14	46	138	CMML	NMA		SIB	MPB	41
56	73,68	63,87			268	1787	0	441	Follicular B-NHL	NMA		UD	MPB	44
57	73,60	2,29			74	495	32	95	Lymphoplasmacytic B-NHL	NMA		SIB	MPB	38
58	73,18	72,30			13	3	46	45	AML	MA		SIB	BM	44
59	72,38	2,17			101	29	2	105	AML	NMA		SIB	MPB	41
60	71,95	8,89			115	27	62	369	AML	MA		SIB	MPB	40
61	69,83	56,00			20	0	0	36	AML	MA		UD	MPB	40
62	69,20	0,00		ND	9	3	1	162	AML	MA		SIB	MPB	37
63	67,86	0,00			15	93	19	235	Primary Myelofibrosis	NMA		SIB	MPB	40
64	64,19	0,15		ND	240	207	8	185	B-ALL	MA		SIB	BM	43
65	63,87	12,37			160	540	184	734	AML	MA		SIB	MPB	44
66	63,47	15,49			64	24	191	275	CML BC	MA		SIB	BM	43
67	63,07	67,81			92	90	6	252	AML	NMA		SIB	MPB	40
68	62,42	15,01		ND	8	22	240	249	MM	NMA		SIB	MPB	49
69	58,38	6,32			265	355	21	503	AML	MA		UD	MPB	41
70	57,50	35,12		ND	58	35	0	52	MM	NMA		SIB	MPB	41
71	52,42	0,88			138	1308	124	392	Hodgkin Lymphoma	MA		SIB	MPB	48
72	48,18	8,75			54	131	126	125	T-ALL	MA		SIB	MPB	43
73	47,74	7,14		ND	229	2	16	96	MDS RAEB-2	MA		UD	MPB	45
74	31,03	0,54			35	45	74	193	AML	NMA		SIB	MPB	36
75	26,85	1,56			61	392	20643	510	CLL	MA		UD	MPB	39
76	16,67	66,67			0	0	2	38	Mycosis Fungoides	NMA	2mg/kg	UD	MPB	37
77	16,14	2,91			39	112	53	166	B-CLL	NMA		UD	MPB	41
78	14,08	2,93			7	8	1	0	CML	NMA		UD	MPB	43
79	13,68	0,30			41	178	109	100	Mantle cell B-NHL	NMA		SIB	MPB	49
80	11,36	5,49			16	11	23	41	B-CLL	NMA		SIB	MPB	40
81	7,99	0,47			8	47	358	231	B-ALL	NMA		SIB	MPB	40
82	4,54	0,14			87	118	58	106	B-CLL	NMA		UD	MPB	43
83	4,17	0,00		ND	1	6	2	23	B-ALL	NMA	1mg/kg	UD	MPB	43
84	2,95	1,17			285	324	201	204	B-CLL	NMA		SIB	MPB	57
85	0,08	0,04			57	55	52	26	B-CLL	NMA	2mg/kg	UD	MPB	37
86	0,05	0,00			381	345	0	118	NK T cell NHL, nasal type	MA		SIB	MPB	39
87	0,00	0,83			2	12	209	236	MM	NMA	2mg/kg	UD	MPB	43
88	0,00	0,33			31	38	165	141	AML	NMA		UD	MPB	43
89	0,00	0,00			1	0	45	159	AML	NMA	2mg/kg	UD	MPB	44

ND indicates not detectable; AML, acute myeloid leukemia; BC, blast Crisis; B-ALL, B cell acute lymphoblastic leukemia; B-NHL, B cell non-Hodgkin lymphoma; CLL, chronic lymphocytic leukemia; CML, chronic myeloid leukemia; CMML, chronic myelomonocytic leukemia; MCL, mantle cell lymphoma; MDS REAB-2, myelodysplastic syndrome refractory anemia with excess blasts-2; MM, multiple myeloma; NOS, not otherwise specified; SAA, severe aplastic anemia; T-ALL, T cell acute lymphoblastic leukemia; T-NHL, T cell non-Hodgkin lymphoma; NMA, non-myeloablative; MA, myeloablative; SIB, sibling; UD, unrelated donor; MPB, mobilized peripheral blood; BM, bone marrow.

Supplemental Table II. Primer sequences used for mRNA expression analysis and mutation analysis

Set 1	GCCATGGAACTCACCGGTAATA	AAAACGTTTGGCCCTTCAG
Set 2a	CTCACCGGTAATAGAGGACAC	GCTTGTTTGTAAGCACCGAGC
Set 2b	GTTCGGGAGAGAGTCACGATA	TTCAGCACCCAAAGCTCTC
CD52	AGACAGCCCTGAGATCACCTA	GCCCCTACATCATTACCCCC
GAPDH	ATGTTCGTCATGGGTGTGAACCA	TGGCAGGTTTTTCTAGACGGCAG
PIGA	GTTCGGGAGAGAGTCACGATA	GCTTGTTTGTAAGCACCGAGC
PIGB	CTTACCCTTCTTTATTCATGGCTG	GGTTAATGAGTATCCACAGAACAC
PIGC	CTGCGCAACCCTAGGAACTC	GAAGAAGCCAGACCAGTCCC
PIGF	GTAGTTCCCCGCTTCCCTTC	CTCCAAGCCATGCTCCTACA
PIGH	GCCATTTACATGCAGAAGGT	GACTGTGTCCACCTGATGGT
PIGK	GGGAAGTCTGAAGCCGGTAA	CTAGGTGGGATCCTCCCAGT
PIGL	TACCTAAAGGGTGCTCTGTG	CCGGGAGAAGATAATGTAGAGG
PIGM	TCACCGCTTTCCTCTTATACC	TGGGAAGGATGTAAGTCACTG
PIGN	AGAAGTGAAGAAACCAAGCC	TCAACACTGATACAACAAGGTC
PIGO	TCGTTGCCCTGAAGAGACAC	ATGCCAATGGATGGCTGGAA
PIGP	GGTGGAAAATTCACCGTCGC	TGGATGGAGTCGAGTGGAGA
PIGQ	CTGTGGATCAGCTACATCCA	CCAGGTCATAGGAACAGGAG
PIGS	GCGGCTACACACCTAGAGG	CTGGGAGTAAGGCAACGAGG
PIGT	GCGGGAGGAACTTGTCATCA	CAAGAGCTTCTTCCAGGGGG
PIGU	TTCATTTCCGAGCGGGTGG	TGCGGGGATGAAATCCCAAG
PIGV	CATGTTCAGGTTCTCACCAG	GCCTAGAATGTATCGTGTGAC
PIGW	AGCCATCTCCTGTTTCCGTG	TGCACACCAGCCATGTGTAT
PIGX	CATAACAGAGGCAGTGATGG	CATTCTCCAAAGCACAAGGGG
PIGY	TGTTCTACTCAGCCTCTGTGG	CCCATCCAAGTCCAAAGGTG
PIGZ	GCCCTGGGAGTTTTACCCC	GAAGGTGGAACCAGAGATCAGC
DPM1	ACAGAATTCTTCTAAGACCACG	CTCCATTTCCTTTGTAGCGA
DPM2	TTAGCCTGATCATCTTCACCT	ATGAACAGTCCCACAAACAG
DPM3	ATGACGAAATTAGCGCAGTGG	TTAGGCTGTCAGAAGCGCAG
GPAA1	CCACGAGCGCTATATGGTGT	ATTGATGCCACGCAGGGTTA
PGAP1	TTCTATGTGCCTGCAAGGGG	ACCTCGTACCGACAGTCTGA
PGAP2	TCCCACTACCACTGGATCGG	GTGTGCTTCTTGGTCAACCG
PGAP3	ACCTGTCGGGACGACTGTAA	AAGAGCGGTGGGAAGTCAAG
SL15	CGTTCAGTGGGACTTGCTTC	GTGTGCCCGTTGTGGTAGTT

Supplemental Table III. Tetramers for detection of virus specific T cells

	HLA	Virus	Protein	Peptide
Recipient 2	A*02:01	CMV	IE-1	VLEETSVML
Recipient 28	B*35:01	CMV	pp65	IPSINVHHY
Recipient 37	B*0801	CMV	IE-1	QIKVRVDMV
Recipient 37	B*0801	EBV	BZLF1	RAKFKQLL