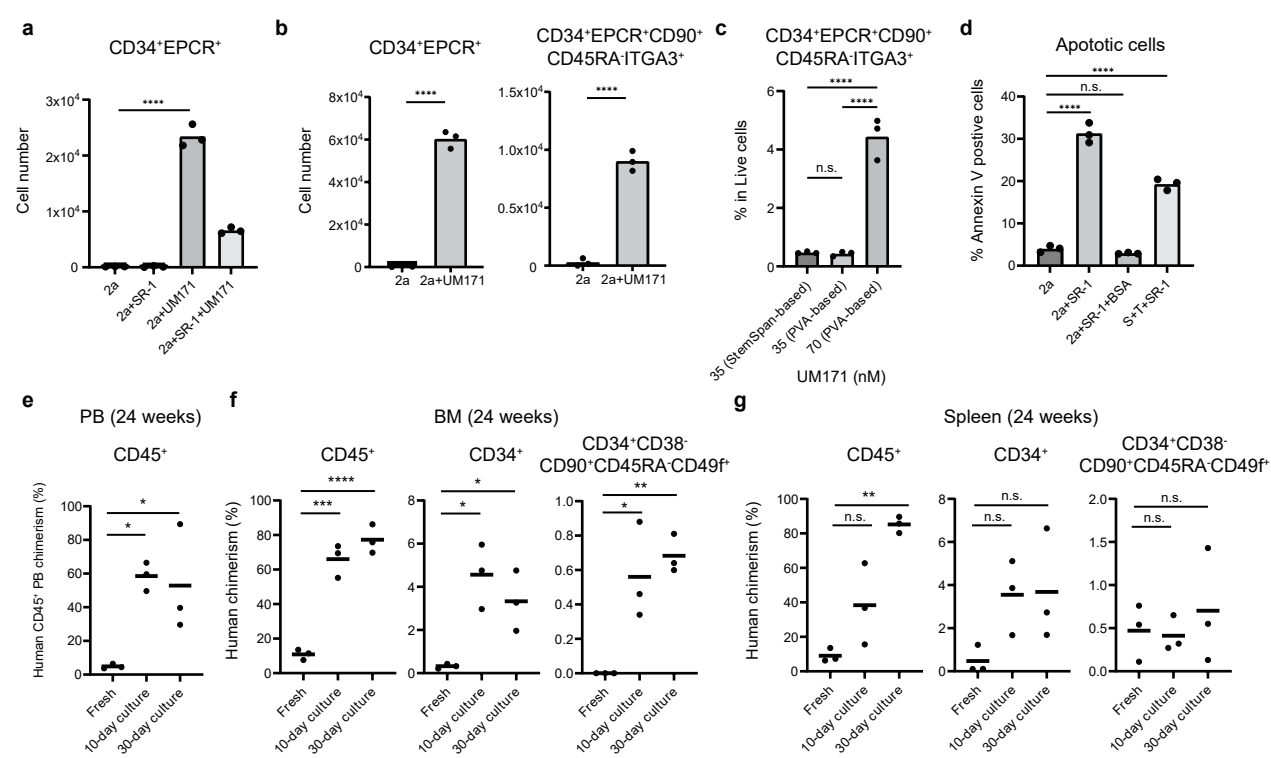
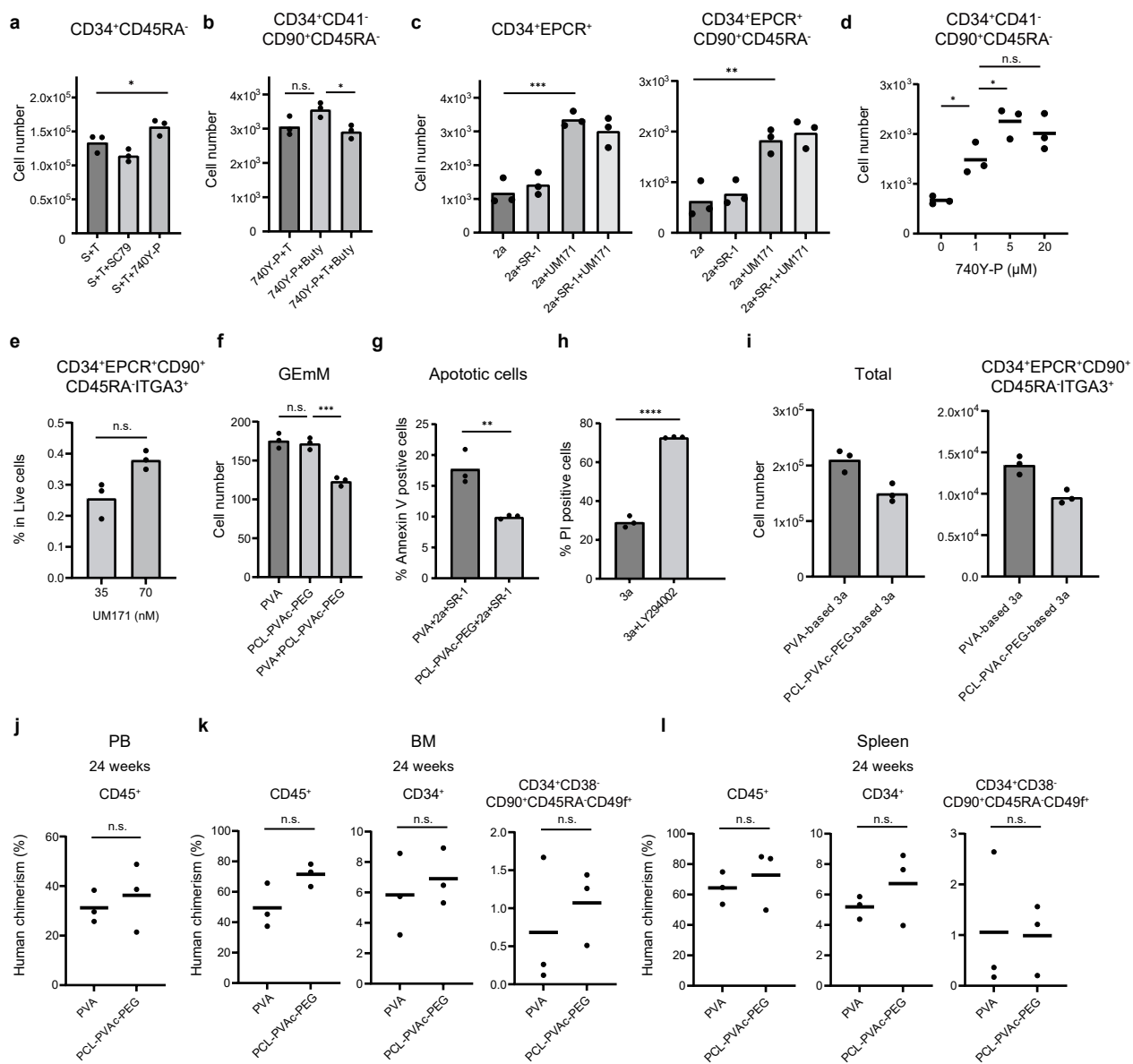


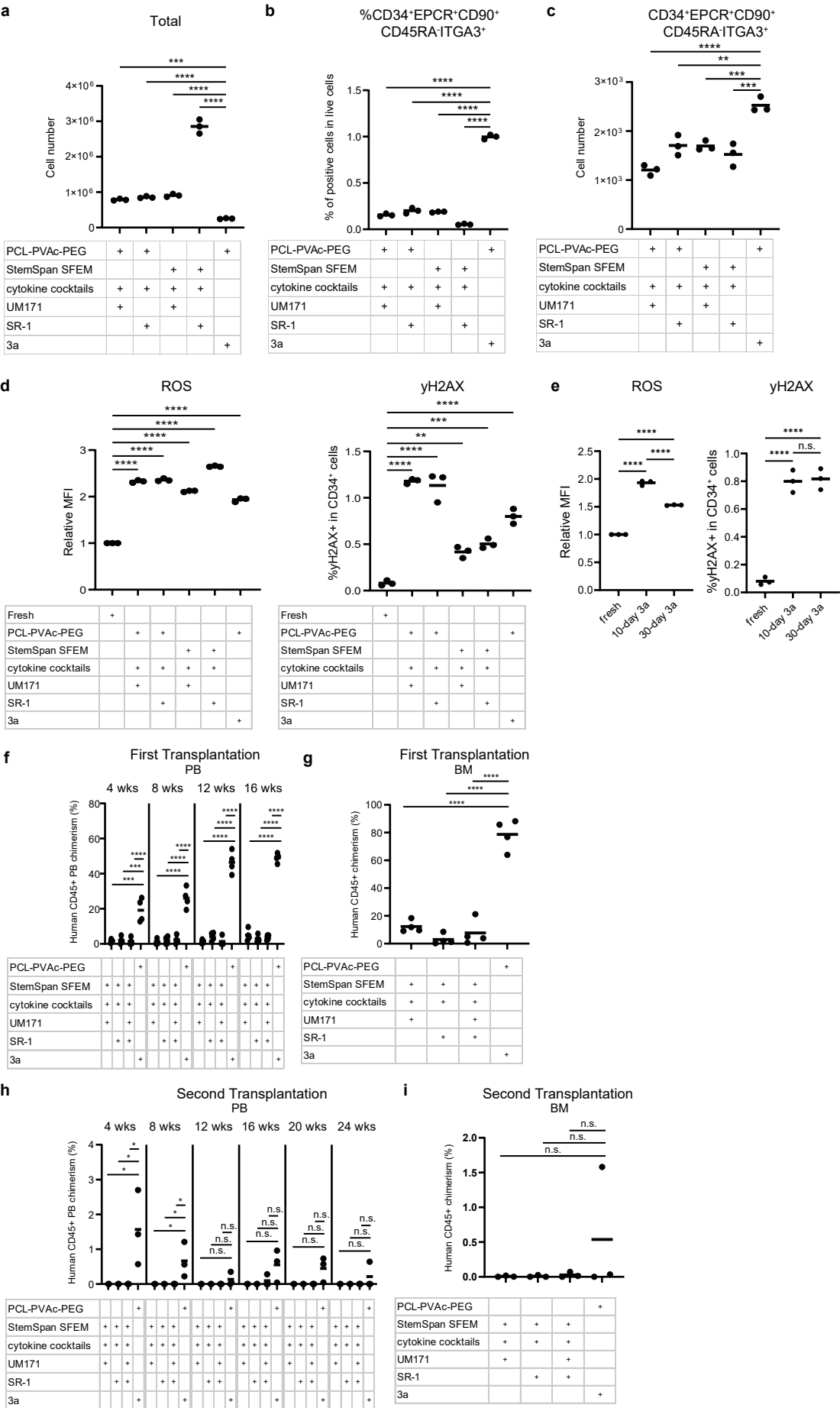
Extended Data Figure 1 Sakurai, et al.



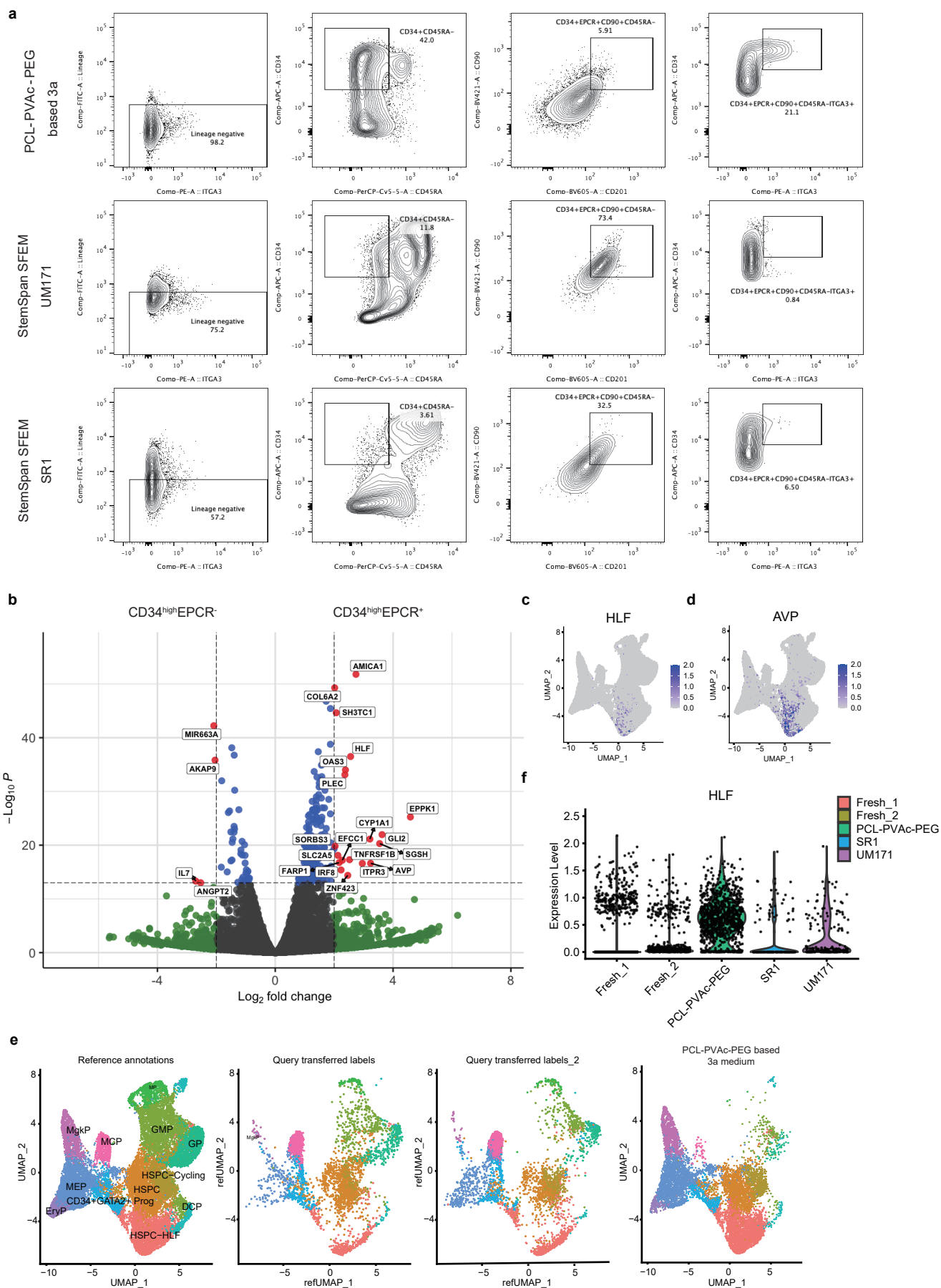
Extended Data Figure 2 Sakurai, et al.



Extended Data Figure 3 Sakurai, et al.

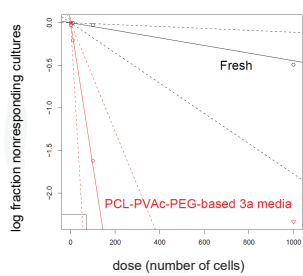


Extended Data Figure 4 Sakurai, et al.

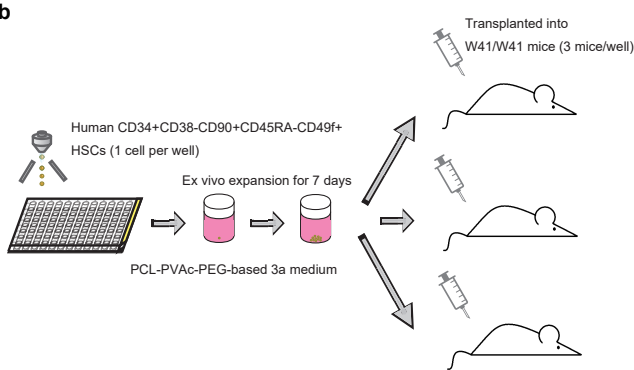


Extended Data Figure 5 Sakurai, et al.

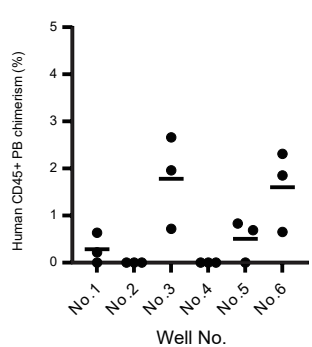
a



b



c



a

BM	CD33+ cells	CD3+ cells	CD19+ cells
Fresh	1.7 (± 0.8) %	0.1 (± 0.2) %	52.9 (± 43.7) %
10-day	1.3 (± 0.5) %	14.7 (± 4.8) %	79.2 (± 8.3) %
30-day	1.8 (± 1.1) %	3.4 (± 2.5) %	84.7 (± 11.0) %

Spleen	CD33+ cells	CD3+ cells	CD19+ cells
Fresh	19.8 (± 13.9) %	3.2 (± 2.9) %	39.3 (± 19.8) %
10-day	1.6 (± 0.9) %	32.1 (± 12.4) %	63.3 (± 20.8) %
30-day	1.8 (± 0.3) %	17.7 (± 6.6) %	73.3 (± 6.3) %

b

BM	CD33+ cells	CD3+ cells	CD19+ cells
PVA	11.8 (± 2.3) %	0.1 (± 0.1) %	81.5 (± 4.2) %
PCL-PVAc-PEG	17.0 (± 8.0) %	0.2 (± 0.2) %	76.2 (± 9.4) %

Spleen	CD33+ cells	CD3+ cells	CD19+ cells
PVA	5.6 (± 0.8) %	0.2 (± 0.1) %	72.5 (± 5.4) %
PCL-PVAc-PEG	5.5 (± 2.7) %	0.8 (± 0.5) %	75.7 (± 5.1) %

c

PCL-PVAc-PEG					Fresh			
1000 cells	100 cells	10 cells	1 cell		1000 cells	100 cells	10 cells	1 cell
68.34	16.34	0.23	0		0.32	0.12	0	0
59.56	4.78	0	0		0.78	0.67	0	0.034
36.43	0.94	1.34	0		1.76	0	0	0
78.12	6.45	0.78	0		0	0	0.78	0
27.56	1.86	0	0		4.87	0.84	0	0

d

	CD33+ cells	CD3+ cells	CD19+ cells
Bone marrow	20.2 (± 7.4) %	0.8 (± 0.6) %	70.8 (± 4.8) %
Spleen	17.5 (± 8.4) %	9.0 (± 6.6) %	62.4 (± 4.4) %

Amino acid change

Chromosome	Region	Type	Reference	Allele	Count	Coverage	Frequency	# unique start positions	Control count	Control coverage	Amino acid change in longest transcript	Homo sapiens (hg19)_Gene	Homo sapiens (hg19)_Gene
1	1020640	SNV	C	A	9	55	16.36	2	0	43		C1orf159	C1orf159
5	756226	SNV	C	T	8	21	38.1	7	1	12		ZDHC11, ZDHC11B	ZDHC11, ZDHC11B
7	72412783	SNV	A	T	6	20	30	3	1	15	ENSP00000378687:p.Thr486Ser	POM121	POM121
7	100644880	SNV	C	T	5	36	13.89	3	1	24	ENSP00000368755:p.Thr382Ile	MUC12	MUC12
19	11916789	SNV	G	T	5	46	10.87	2	0	78	ENSP000000313443p.Glu7Asp	ZNF491	ZNF491
20	33342608	SNV	C	A	5	46	10.87	2	0	60	ENSP00000363929:p.Gly531Val	NCOA6	NCOA6
X	8433535	SNV	A	C	5	16	31.25	4	0	12	ENSP00000370420:p.Lys15Thr	VCX3B	VCX3B

Splice change

Chromosome	Region	Type	Reference	Allele	Count	Coverage	Frequency	# unique start positions	Control count	Control coverage	Splice effect	Homo sapiens (hg19)_Gene
2	114352638	SNV	A	G	6	23	26.09	5	0	12	Possible splice site disruption	WASH2P
13	1160095..11160099	Deletion	GAGTC	-	7	11	63.64	8	0	4	Possible splice site disruption	COL4A2, COL4A2-AS1
15	102513798	SNV	G	C	5	16	31.25	4	1	7	Possible splice site disruption	WASH3P
22	20387160	SNV	G	A	13	44	29.55	11	1	27	Possible splice site disruption	PI4KAP1
22	20705223	SNV	T	G	5	15	33.33	4	1	15	Possible splice site disruption	FAM230A, USP41

Fluorescence	Antigen	Clone	Source	Cat#
Human				
PE-Cy7	CD34	581	BD Biosciences	560710
V450	CD38	HIT2	BD Biosciences	561378
FITC	CD41	HIP8	BioLegend	303704
PerCP-Cy5.5	CD34	581	BioLegend	343522
BV421	CD38	HIT2	BD Biosciences	562444
PE-Cy7	CD90	5E10	BD Biosciences	561558
APC-H7	CD45RA	HI100	BD Biosciences	560674
PE	CD49f	GoH3	BD Biosciences	561894
APC-Cy7	CD45	30-F11	BioLegend	103116
PE	CD34	581	BioLegend	343506
PE-Cy7	CD33	WM-53 (WM53)	eBioscience	25-0338-42
PE	CD3	OKT3	eBioscience	12-0037-42
APC	CD19	eBio1D3 (1D3)	eBioscience	17-0193-82
PE	CD56	HCD56	BioLegend	318305
FITC	CD66b	G10F5	BioLegend	305103
APC	CD34	581	BioLegend	343510
BV421	CD90	5E10	BioLegend	328122
PE	CD90	5E10	BioLegend	329110
PerCPCy5.5	CD45RA	HI100	BioLegend	304121
FITC	CD45RA	HI100	BioLegend	304148
BV605	CD201 (EPCR)	RCR-252	BD Biosciences	745335
FITC	Lineage cocktail 4		BD Biosciences	562722
BV711	CD41a	HIP8	BD Biosciences	740778
PE	CD49c (ITGA3)	C3 II.1	BD Biosciences	556025
Propidium Iodide			BioLegend	421301
AlexaFluor488 AnnexinV			Invitrogen	A13201
Cellstain DAPI solution			DOJINDO	D523
FITC	Ki67	11F6	BioLegend	151212
FITC	IgG2b κ Isotype control	RTK4530	BioLegend	400634
Mouse				
Biotin	CD4	GK1.5	eBioscience	13-0041-85
Biotin	CD8	53-6.7	eBioscience	13-0081-86
Biotin	CD45R	RA3-6B2	eBioscience	36-0452-85
Biotin	TER119	TER-119	eBioscience	13-5921-85
Biotin	LY-6G/LY-6C	RB6-8C5	eBioscience	13-5931-85
Biotin	CD127	A7R34	eBioscience	13-1271-85
APC	c-Kit	2B8	eBioscience	17-1171-83
FITC	CD34	RAM34	eBioscience	11-0341-85
APC	streptavidin		eBioscience	47-4317-82
V450	CD45.1	A20	BD Biosciences	560520

Extended Data Table 3 Sakurai, et al.