

SUPPLEMENTARY TABLE 1

(a) Cell Type & Restriction Fragment	(b) Labeling time in (minutes) IdU_CldU Tp1_Tp2	(c) Total # of Igh molecules surveyed	(d) % of Igh molecules containing halogenated nucleotides	(e) Total # of imaged molecules fully substituted with IdU, CldU, or both	(f) # of Igh molecules suitable for SMARD N _R -N _G -N _{RG}	(g) # of initiation events per 100 molecules % of molecules showing initiation events within the fragment	(h) # of colliding forks per 100 molecules % of molecules showing colliding forks within the fragment	(i) Average time required to replicate the genomic region encompassed by the restriction fragment Tr	(l) Average # of replication forks per fragment	(m) Average speed per replication fork (kb/min.)	(n) Fragment Size (kb)
Pax5^{-/-} Pro-B cells											
<i>Pax5^{-/-} Rag2^{-/-} Bone Marrow</i> <i>SwaI</i> (129/Sv_129/Sv)	225__225	942	33%	311	70__103__36	0 0%	39 39%	58	1.39	2.25	181
<i>Pax5^{-/-} Rag2^{-/-} Bone Marrow</i> <i>PacI</i> (129/Sv_129/Sv)	225__225	1809	33%	597	119__182__57	51 51%	0 0%	54	1.51	2.24	183
<i>Pax5^{-/-} Rag2^{-/-} Bone Marrow</i> <i>PmeI-#4</i> (129/Sv_129/Sv)	225__225	n.d.	n.d.	242	39__30__27	15 7%	59 48%	107	1.74	2.98	~555
<i>Pax5^{-/-} Rag2^{-/-} Bone Marrow</i> <i>PmeI-#5</i> (129/Sv_129/Sv)	225__225	n.d.	n.d.	154	35__28__38	50 47%	18 18%	130	1.68	2.25	~492
<i>Pax5^{-/-} (B.M. clone)</i> <i>SwaI</i> (129/Sv_ΔD-J)	240__240	298	39%	116	28__16__23	0 0%	0 0%	142	1	1.20	181
<i>Pax5^{-/-} (B.M. clone)</i> <i>PacI</i> (129/Sv_ΔD-J)	240__240	288	40%	115	41__28__11	0 0%	0 0%	68	1	1.69	~118
<i>Pax5^{-/-} (B.M. clone)</i> <i>SwaI</i> (C57BL/6_ΔD-J-r)	240__240	316	37%	117	26__22__19	0 0%	11 11%	111	1.11	1.31	~168
<i>Pax5^{-/-} (B.M. clone)</i> <i>PacI</i> (C57BL/6_ΔD-J-r)	240__240	541	34%	184	44__41__14	14 14%	0 0%	61	1.14	1.15	~141
wt Pro-B cells											
<i>Rag2^{-/-} Bone Marrow</i> <i>SwaI</i> (129/Sv_129/Sv)	180__180	n.d.	n.d.	227	58__75__34	50 41%	24 24%	56	1.74	1.86	181
<i>Rag2^{-/-} Bone Marrow</i> <i>PacI</i> (129/Sv_129/Sv)	180__180	n.d.	n.d.	302	70__104__66	20 20%	20 20%	70	1.39	1.88	183
<i>Rag2^{-/-} Bone Marrow</i> <i>PmeI-#4</i> (129/Sv_129/Sv)	180__180	n.d.	n.d.	234	25__21__44	59 45%	55 36%	122	2.14	2.13	~555
<i>Rag2^{-/-} Bone Marrow</i> <i>PmeI-#5</i> (129/Sv_129/Sv)	180__180	n.d.	n.d.	210	61__56__69	65 55%	55 42%	99	2.20	2.26	~492

Pax5ER Reconstituted Pro-B cells											
KO-Pax5ER w/o 4-OHT <i>Swal</i> (C57BL/6)	220__220	774	46%	356	97__115__71	14 11%	18 17%	84	1.32	1.56	173
KO-Pax5ER w/o 4-OHT <i>Swal</i> (129/Sv)	220__220	808	39%	315	98__113__46	17 15%	15 13%	64	1.33	2.13	181
KO-Pax5ER 28h 4-OHT CD19+ <i>Swal</i> (C57BL/6)	220__220	n.d.	n.d.	374	102__123__76	36 33%	30 26%	84	1.64	1.26	173
KO-Pax5ER 28h 4-OHT CD19+ <i>Swal</i> (129/Sv)	220__220	882	49%	432	98__139__80	40 34%	33 28%	80	1.73	1.31	181
KO-Pax5ER 28h 4-OHT CD19- <i>Swal</i> (129/Sv)	220__220	n.d.	n.d.	355	84__137__66	53 44%	26 23%	72	1.79	1.40	181
<i>Pax5^{-/-} Rag2^{-/-}</i> Bone Marrow 36h 4-OHT (mock induc.) <i>Swal</i> (129/Sv_129/Sv)	180__180	363	27%	98	18__24__26	0 0%	15 15%	93	1.15	1.69	181
KO-Pax5ER 36h 4-OHT CD19+, 48h w/o 4-OHT <i>Swal</i> (129/Sv)	180__180	800	38%	304	81__97__58	16 14%	14 12%	67	1.29	2.09	181
KO-Pax5ER w/o 4-OHT <i>Swal</i> (129/Sv)	180__180	633	18%	114	34__41__16	19 13%	25 25%	51	1.38	2.57	181
KO-Pax5ER 1h 4-OHT <i>Swal</i> (129/Sv)	180__180	787	15%	118	33__32__21	48 38%	33 33%	71	1.81	1.41	181
KO-Pax5ER 6h 4-OHT <i>Swal</i> (129/Sv)	180__180	1131	13%	147	29__60__32	56 56%	41 38%	63	1.97	1.46	181
KO-Pax5ER 12h 4-OHT <i>Swal</i> (129/Sv)	180__180	453	17%	77	20__28__24	58 54%	29 29%	83	1.88	1.16	181
KO-Pax5ER 24h 4-OHT <i>Swal</i> (129/Sv)	180__180	1150	22%	253	64__97__51	45 39%	33 29%	62	1.78	1.64	181