

Id	Junction (GRCh37)	Homology (bp)	Insertion (bp)	Mechanism (junction level)	Mechanism (rearrangement level)	Rearrangement type
IS/0101	chr17:44134039::chr9:35779227	0	27*	Replicative		
	chr17:44134030::chr9:35779222	1	0	NHEJ	NHEJ/Replicative	CCR
	chr9:35773305::chr17:44139543	0	0	NHEJ		
IL/1901	chr3:39909637::74225419	2	0	NHEJ/Replicative		
	chr3:75494494::75498415	5	0	Replicative		
	chr3:75498225::65929005	7	0	MMEJ/Replicative		
	chr3:68270000::70044658	1	18*	NHEJ/Replicative		
	chr3:70051680::163583574	1	0	NHEJ		
	chr3:163559729::65925648	(6)	0	MMEJ/Replicative		
	chr3:39909662::70051712	3	0	NHEJ/MMEJ/Replicative	Replicative	Chromoanagenesis
	chr3:70054609::68270008	(2)	0	NHEJ/Replicative		
	chr3:70044598::74225415	3	0	NHEJ/MMEJ/Replicative		
	chr3:71884465::70054684	4	0	NHEJ/Replicative		
	chr3:71156417::71884474	4	0	NHEJ/Replicative		
LV/1701	chr3:71156446::163559725	0	0	NHEJ		
	chr3:75498424::163583575	(4)	0	NHEJ/Replicative		
LV/1701	chr3:179816182::chr9:22010919	2	0	NHEJ/MMEJ/Replicative	NHEJ	Simple
	chr3:179818874::chr9:22010942	0	0	NHEJ		
JB/0102	chr6:166365424::chr13:82220727	3	0	NHEJ/MMEJ/Replicative		
	chr13:80742954::chr9:23875494	1	0	NHEJ		
	chr6:168444979::chr8:2388819	0	0	NHEJ		
	chr8:2388818::chr9:25276660	(4)	0	NHEJ/Replicative	NHEJ	CCR
	chr9:23875494::chr9:25276661	1	0	NHEJ		
	chr11:103440006::chr6:168444979	0	5*	NHEJ		
CM/0103	chr6:166365823::chr13:82820728	1	0	NHEJ		
	chr13:80742970::chr11:103440008	2	0	NHEJ		
	chr3:120947472::chr22:12041370 (GRCh38)	1	0	NHEJ	NHEJ	Simple
VJ/0601	chr22:12041367::chr3:120947490 (GRCh38)	2	0	NHEJ/Replicative		
	chr14:98758653::chr4:24332315	2	0	NHEJ/Replicative	NHEJ	Simple
VJ/0601	chr14:98758657::chr4:24332309	0	4*	NHEJ		
	chr12:101739873::chr15:36618916	0	0	NHEJ		
CS/1002	chr15:35043063::chr12:115799085	0	0	NHEJ		
	chr15:35043064::chr15:38605309	2	0	NHEJ/Replicative	NHEJ	CCR
	chr15:39186047::chr12:101739885	0	2	NHEJ		
	chr12:115799079::chr15:36618919	2	0	NHEJ/Replicative		
	chr15:38605305::chr15:39186049	2	0	NHEJ/Replicative		
CL/2001	chr15:37377785::chr11:20219438	(3)	0	NHEJ/Replicative	NHEJ	Simple
	chr15:37377784::chr11:20219439	1	0	NHEJ		
MD/0104	chr7:149451597::chrX:58568911	3	0	NHEJ/Replicative	NHEJ	Simple
	chr7:149451594::chrX:58568915	0	0	NHEJ		
LF/2002	chr8:55052711::chr2:21497667	0	4*	NHEJ	NHEJ	Simple
	chr8:55047729::chr2:21497656	2	0	NHEJ/MMEJ/Replicative		
SL/0105	chr2:74789593::148888435	7	0	NHEJ/MMEJ/Replicative	MMEJ/Replicative	Simple
	chr2:74789726::148888477	2	0	NHEJ/MMEJ/Replicative		
EB/0401	chr5:82639865::82727779	3	0	NHEJ/Replicative		
	chr5:88428853::82727718	0	0	NHEJ		
	chr5:82639869::145,115,091	4	0	NHEJ/Replicative		
	chr5:144980468::121056498	0	0	NHEJ		
	chr5:119887510::128098589	0	1	NHEJ		
	chr5:123913723::123495004	0	0	NHEJ		
	chr5:123913719::128098596	0	1	NHEJ		
	chr5:144980454::122565263	1	0	NHEJ		
	chr5:122429970::123494994	4	0	NHEJ/MMEJ/Replicative		
	chr5:122565564::166779229	1	0	NHEJ		
	chr5:165945122::121175464	2	0	NHEJ/Replicative		
	chr5:121094014::167429301	0	0	NHEJ	NHEJ+MMEJ	Chromoanagenesis
	chr5:166779230::164462059	0	0	NHEJ		
	chr5:145663117::167436338	9	0	MMEJ/Replicative		
	chr5:167429296::164462058	(3)	0	NHEJ/Replicative		
	chr5:165945117::88428855	1	0	NHEJ		
	chr5:90444779::121056498	1	0	NHEJ		
chr5:121094016::90444779	2	0	NHEJ/Replicative			
chr5:119887503::176428596	0	22*	NHEJ/Replicative			
chr5:167436338::176428600	1	0	NHEJ			
chr5:176446837::121175466	3	0	NHEJ/Replicative			
chr5:1224299625::chr5:145663114	3	0	NHEJ/Replicative			
chr5:145115094::176446831	0	0	NHEJ			
	chr18:75078232::chr10:12981920	0	2	NHEJ		
	chr10:12993998::chr3:146852555	5	0	MMEJ/Replicative		
	chr3:31560762::146852592	4	0	NHEJ/MMEJ/Replicative		
	chr4:91933971::chr10:11359832	0	0	NHEJ		
	chr10:10607348::chr10:9559539	(3)	0	NHEJ/Replicative		
	chr10:10315687::10334273	1	0	NHEJ		

TS/1101	chr10:10315694::12437410	3	0	NHEJ/Replicative	NHEJ/Replicative	Chromoanagenesis
	chr10:11359833::chr3:4235295	0	0	NHEJ		
	chr3:31560763::chr18:71840447	1	0	NHEJ		
	chr18:75078221::chr10:12474192	0	11*	NHEJ/Replicative		
	chr10:12981895::chr3:2693744	0	5*	NHEJ		
	chr4:91933972::chr10:12994051	0	0	NHEJ		
	chr14:86864001::chr3:2693747	2	0	NHEJ/Replicative		
	chr3:4235296::chr10:10355498	0	3*	NHEJ		
	chr10:10607349::124374102	2	0	NHEJ/Replicative		
	chr10:12474190::10334272	0	0	NHEJ		
chr10:10355464::9559538	2	0	NHEJ/MMEJ/Replicative			
chr18:71840451::chr14:86863996	0	0	NHEJ			
CG/0106	chr6:109890177::chr11:113314556	2	0	NHEJ/Replicative	NHEJ	CCR
	chr11:113314551::chr6:109890184	0	1	NHEJ		
	chr15:60191404::chrX:31363627	2	0	NHEJ/Replicative		
	chr13:72481968::chrX:31363619	3	0	NHEJ/Replicative		
	chr15:60191405::chr13:72841969	0	0	NHEJ		
AG/1003	chr5:170866372::chr14:69584218	1	0	NHEJ	NHEJ	Simple
	chr14:69584205::chr5:170866372	0	4*	NHEJ		
MH/1103	chr2:148869298::190089580	0	6*	NHEJ	NHEJ/Replicative	Simple
	chr2:148869296::190089589	2	13*	MMEJ/Replicative		
JP/0107	chr4:122332907::chr17:60581319	1	0	NHEJ	NHEJ+MMEJ	Simple
	chr17:60581315::chr4:122332920	5	0	MMEJ/Replicative		
CS/1902	chr4:148252852::chr14:99097980	1	0	NHEJ	NHEJ	Simple
	chr14:99097976::chr4:148252854	0	9	NHEJ		
AD/1601	chr9:129869403::chr17:45,807,437	2	0	NHEJ/Replicative	NHEJ	Simple
	chr17:45807432::chr9:129869408	0	6*	NHEJ		
HB/1104	chr11:123156790::chr12:19733004	1	0	NHEJ	NHEJ	Simple
	chr11:123156794::chr12:19733012	3	0	NHEJ/Replicative		
OL/2202	chr1:199578194::chr5:87638779	1	0	NHEJ	NHEJ	CCR
	chr5:87791275::chr14:48231803	0	2	NHEJ		
	chr5:87638776::88527562	0	0	NHEJ		
	chr14:48231747::chr5:87791277	0	2	NHEJ		
	chr5:88527549::chr1:199578195	0	0	NHEJ		
AS/0301	chr5:152196581::chr6:17401275	2	0	NHEJ/Replicative	NHEJ/Replicative	Simple
	chr5:152196590::chr6:17401294	(4)	3	NHEJ/Replicative		
JP/2301	chr18:35615587::chr9:13697592	3	0	NHEJ/MMEJ/Replicative	NHEJ	Simple
	chr18:35615585::chr9:13697578	1	0	NHEJ		
NM/0201	chr2:156072831::156427981	1	0	NHEJ	NHEJ	Chromoanagenesis
	chr2:156265493::157269866	0	0	NHEJ		
	chr2:157274489::150803421	1	0	NHEJ		
	chr2:150753372::147559888	0	0	NHEJ		
	chr2:146853158::148346754	2	0	NHEJ/Replicative		
	chr2:150753372::103067083	1	0	NHEJ		
	chr2:101663717::148318077	1	0	NHEJ		
	chr2:148346753::chr1:121247972	(3)	5	NHEJ/Replicative		
	chr2:101663576::157275115	1	0	NHEJ		
	chr2:157274489::147559889	0	0	NHEJ		
	chr2:148318076::103067091	0	0	NHEJ		
	chr2:146853147::156459545	0	0	NHEJ		
	chr2:157269856::156265463	0	9*	NHEJ		
	chr2:156072831::157372067	2	0	NHEJ/Replicative		
	chr2:179849948::chr1:121247972	0	0	NHEJ		
	chr3:49454928::chr2:156427982	0	2	NHEJ		
chr2:157372068::chr3:49454932	3	0	NHEJ/Replicative			
chr2:156459486::157275114	0	2	NHEJ			
VD/2401	chr7:96420534::143282648	0	0	NHEJ	NHEJ	Simple
	chr7:96420531::143282647	3	0	NHEJ/Replicative		
AL/2402	chr3:16652378::16657768	3	0	NHEJ/MMEJ/Replicative	NHEJ	CCR
	chr3:16652421::162351577	0	0	NHEJ		
	chr3:16657884::162351610	2	0	NHEJ/MMEJ/Replicative		
MD/2203	chr3:18842071::chr1:90927239	0	3*	NHEJ	NHEJ+MMEJ	Chromoanagenesis
	chr5:155211975::chr1:90835682	3	0	NHEJ/MMEJ/Replicative		
	chr1:90912340::89292127	0	0	NHEJ		
	chr1:89228243::90912339	2	0	NHEJ/Replicative		
	chr1:90917424::chr5:88189081	1	0	NHEJ		
	chr5:89299080::chr1:90927238	1	0	NHEJ		
	chr1:90924676::chr3:18845977	2	0	NHEJ/Replicative		
	chr5:88188531::89299075	1	0	NHEJ		
	chr5:155211974::chr3:18842070	0	0	NHEJ		
	chr3:18845976::chr1:89407129	0	0	NHEJ		
	chr1:89318161::90920858	3	0	NHEJ/MMEJ/Replicative		
	chr1:90917428::89228244	0	0	NHEJ		
	chr1:88987533::89318168	2	0	NHEJ/Replicative		
	chr1:89292144::chr5:88188522	0	8*	NHEJ		
	chr5:88189081::chr1:89407142	0	0	NHEJ		
	chr1:89479919::90835669	0	0	NHEJ		
	chr1:89497087::88987532	0	0	NHEJ		

	chr1:89475928::89478645	5	0	MMEJ/Replicative		
JB/1602	chr16:56288703::chr2:245820	1	0	NHEJ	NHEJ	Simple
	chr16:56288704::chr2:245819	1	0	NHEJ		
EC/2302	chr4:10548686::chr14:94170011	2	0	NHEJ/Replicative	NHEJ/Replicative	Simple
	chr14:4170010::chr4:105548687	2	0	NHEJ/Replicative		
TP/0801	chr8:85384078::chr1:97975924	3	0	NHEJ/Replicative	NHEJ/Replicative	Simple
	chr8:85384078::chr1:97975012	3	0	NHEJ/Replicative		
DM/0109	chr19:32805963::chr1:3199352	2	0	NHEJ/Replicative	NHEJ	Simple
	chr19:32805952::chr1:3199348	0	0	NHEJ		
BA/2303	chr8:38240669::53594109	3	0	NHEJ/MMEJ/Replicative		
	chr8:57742496::chr2:50899876	0	0	NHEJ		
	chr2:50899875::chr8:38240691	2	0	NHEJ/Replicative	NHEJ	CCR
	chr8:53594094::chr8:57742499	0	1	NHEJ		
JE/1401	chrX:143274164::chr10:80552344	0	0	NHEJ	NHEJ	Simple
	chr10:80552343::chrX:143274161	0	0	NHEJ		
MG/1801	chr9:118797858::chr8:32608536	1	0	NHEJ	NHEJ	Simple
	chr9:118797860::chr8:32608533	1	0	NHEJ		
EM/2403	chr4:173612939::chr19:13191093	4	0	NHEJ/Replicative	NHEJ	Simple
	chr4:173612937::chr19:13191099	1	0	NHEJ		
BM/1603	chr13:79950807::chrX:6560460	0	0	NHEJ		
	chr13:79950804::chrX:6560456	1	0	NHEJ	NHEJ	Simple
	chr2:199780459::chr15:99763974	0	0	NHEJ		
CF/2304	chr15:99781580::chr10:90093731	0	0	NHEJ		
	chr8:98883797::chr15:99783832	0	1	NHEJ	NHEJ	CCR
	chr10:90093734::chr8:98883795	0	29*	NHEJ		
	chr15:99757847::chr2:199780460	0	8*	NHEJ		
KT/1403	chr8:61885817::chr14:42074505	0	0	NHEJ		
	chr14:49059674::chr8:61885817	0	6*	NHEJ		
	chr8:80663818::TGGAG::98566062	0	5*	NHEJ/Replicative		
	chr8:109560519::chr13:93493574	2	0	NHEJ/Replicative		
	chr13:83214192::93493578	0	0	NHEJ		
	chr13:83214192::chr8:109560518	2	0	NHEJ/Replicative		
	chr14:25904165::chr15:94885854	0	0	NHEJ		
	chr15:94885846::chr14:25904167	0	3*	NHEJ	NHEJ+MMEJ	Chromoanagenesis
	chr14:31325226::chr8:98566061	0	0	NHEJ		
	chr8:80754254::80663823	9	0	MMEJ/Replicative		
	chr8:80741443::chr14:31325226	5	0	MMEJ/Replicative		
	chr14:32709589::33757312	0	0	NHEJ		
	chr14:32709602::33757311	0	0	NHEJ		
chr14:42074504::T::49059674	0	1	NHEJ			
AL/1802	chr14:42469838::chr6:53155917	4	0	NHEJ/MMEJ/Replicative	NHEJ/Replicative	Simple
	chr14:42469830::chr6:53155903	2	0	NHEJ/Replicative		
MC/1803	chr7:69507717::chr10:105031289	0	0	NHEJ	NHEJ	Simple
	chr10:105031287::chr7:69507715	0	0	NHEJ		
GS/2305	chr5:153874165::chr12:92834988	2	0	NHEJ/Replicative	NHEJ	Simple
	chr12:92834979::chr5:153874166	0	6*	NHEJ		
OP/0701	chr3:169239241::chr14:94528188	4	0	NHEJ/Replicative	NHEJ/Replicative	Simple
	chr14:94528185::chr3:169239247	3	0	NHEJ/Replicative		
JB/1404	chr10:81010865::chr12:128533517	3	0	NHEJ/Replicative	Replicative	Simple
	chr12:128533508::chr10:81010871	(7)	0	NHEJ/MMEJ/Replicative		
MD/0110	chrX:151730337::chr18:20185222	2	0	NHEJ/MMEJ/Replicative	NHEJ/Replicative	Simple
	chr18:20256560::chrX:151756693	0	9*	NHEJ/Replicative		
JJ/0402	chr3:122821837::chr6:33409201	0	5*	NHEJ	NHEJ+MMEJ	Simple
	chr3:122821839::chr6:33409206	(5)	0	NHEJ/MMEJ/Replicative		
MCP/1105	chr2:191104110::chr15:96475805	(6)	11*	MMEJ/Replicative		
	chr15:96475803::chr2:191104112	6	0	MMEJ/Replicative	MMEJ/Replicative	Simple
BM/1201	chr11:47868788::chr5:42643063	0	72*	NHEJ		
	chr5:115867110::chr8:128815228	4	0	NHEJ/Replicative		
	chr8:128815229::chr5:115867114	4	0	NHEJ/Replicative	NHEJ/Replicative	CCR
	chr5:29792806::chr5:42642909	0	1	NHEJ		
	chr5:29792807::chr11:47868800	5	0	NHEJ/Replicative		
AB/1604	chr2:60225092::chr1:108658563	0	19*	Replicative	Replicative	Simple
	chr1:108658558::chr2:60225095	5	0	NHEJ/Replicative		
AB/2404	chr7:3672128::chr18:52643123	6	0	MMEJ/Replicative	NHEJ+MMEJ	Simple
	chr18:52640089::chr7:93676082	0	4	NHEJ		

Supplementary table S4: Junction sequences and mechanisms involved

NHEJ: non-homologous end-joining; MMEJ: micro-homology mediated end-joining; CCR: complex chromosomal rearrangement pseudo-micro-homology are indicated in brackets; templated insertions are indicated by an asterisk