Figure S5

A) *Lig3*$^{KO/cKOneo+}$

Translocation clones	Chr. 6		Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
		Translocation junctions	
E2bE1	CAGAAGACTCCCGCCCATCTTC		GCTCGCCGGATACGGGGGGAGAGAGC
E2bG2	CAGAAGACTCCCGCCCATCTT		CTCGCCGGATACGGGGGGAGAGAGC
E1bH3	CAGAAGACTCCCGCCCATCT		GCTCGCCGGATACGGGGGGAGAGAGC
E1E11	CAGAAGACTCCCGCCCATCT	+185 inser.	GCTCGCCGGATACGGGGGGAGAGAGC
E2bA1	CAGAAGACTCCCGCCCATC		CTCGCCGGATACGGGGGGAGAGAGC
E1C8	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E2D1	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E2bD5	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E2bE2	CAGAAGACTCCCGCCCATCTTC	TCGATACGGA	CGGATACGGGGGGAGAGAGC
E1H8	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E2B6	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E2H12	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E1G6	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2C2	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2A12	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2bB1	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2F9	CAGAAGACTCCCGCCCATCT		GCCGGATACGGGGGGAGAGAGC
E2A1	CAGAAGACTCCCGCCC		GCTCGCCGGATACGGGGGGAGAGAGC
E2bF6	CAGAAGACTCCCGCCC		GCTCGCCGGATACGGGGGGAGAGAGC
E2E11	CAGAAGACTCCCGCCCATC	GTATC	CGGATACGGGGGGAGAGAGC
E1E9	CAGAAGACTCCCGCCCATCT		CGGATACGGGGGGAGAGAGC
E2bC3	CAGAAGACTCCCGCCC		TCGCCGGATACGGGGGGAGAGAGC
E2bC8	CAGAAGACTCCCGCCC		TCGCCGGATACGGGGGGAGAGAGC
E1F7	CAGAAGACTCCCGCCCATC		CGGATACGGGGGGAGAGAGC
E1B7	CAGAAGACTCCCGCCCAT	GCTCA	CCGGATACGGGGGGAGAGAGC
E1bE2	CAGAAGACTCCCGCCCA	AAA	CCGGATACGGGGGGAGAGAGC
E2bE12	CAGAAGACTCCCGCCCA	AAAAAAAA	CCGGATACGGGGGGAGAGAGC
E2H7	CAGAAGACTCCCGCCC		CGGATACGGGGGGAGAGAGC
E2F1	CAGAAGACTCCCGCC	T	CCGGATACGGGGGGAGAGAGC
E1G11	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E2F7	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E2bG7	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E2bE10	CAGAAGACTCCCGCC	+12 inser.	CGGATACGGGGGGAGAGAGC
E1H4	CAGAAGACTCCCGCCC	+20 inser.	GGATACGGGGGGAGAGAGC
E1F3	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1B8	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1D9	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2G10	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2bD4	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2bE7	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1G1	CAGAAGACTCCCGC		GGATACGGGGGGAGAGAGC
E2E2	CAGAAGACTCCCG		GGGGGAGAGAGC
E2bG12	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E1C10	CAGAAGACTCCCGCCCATC		GGGGAGAGAGC
E2bF9	CAGAAG		GCTCGCCGGATACGGGGGGAGAGAGC
E1bF7	CAGAAGACTCCCGCCCA		CGGGGGGAGAGAGC
E2H9	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2bH5	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2bC10	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1F2	CAGAAGACTCC		GGATACGGGGGGAGAGAGC
E1G3	CAGAAGACTCCCGC		GGGGGGAGAGAGC
E2E12	CAGAAGACTCCCGCCCA		GGGAGAGAGC
E1B12	CAGAAGACTCCCG		GGGGGAGAGAGC

Figure S5, con't.

A) *Lig3*$^{KO/cKOneo+}$

	Chr. 6		Chr. 11	
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC	
Translocation clones		Translocation junctions		
E1H3	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC	
E1A5	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC	
E1bB3	CAGAAGACTCCCGCCCAT		GAGC	
E1B6	CAGAAGAC		CGGATACGGGGGGAGAGAGC	
E2C5	CAGAAGACTCCCGCC	TTA	AGAGAGC	
E2bA5	CAGAAGAC		GGGGGGAGAGAGC	
E2bH5	CCC		GATACGGGGGGAGAGAGC	
E1bA7	CAGAAGACT	G	CGGGGGGAGAGAGC	
E1C9	CAGA		GAGC	
E1B10	GGT -39del		GCTCGCCGGATACGGGGGGAGAGAGC	
E1G12	CAGAAGACTCCCGC		-38del GGT	
E2C1	AAG -27del		AGAGC	
E2F4	AGC -26del	+36 inser.	AGC	
E2bC6	CAGAAG		-37del CGG	
E1bD12	CAGAAG		-37del CGG	
E1H2	TTTAAG		-30del TTG	
E1D5	TCC -68del	+48 inser.	GATACGGGGGGAGAGAGC	
E1H5	ACC -78del		GGATACGGGGGGAGAGAGC	
E2bC11	ACA -47del		-52del TTT	
E1G5	AAA -135del	+432 inser.	CCGGATACGGGGGGAGAGAGC	
E2bC6	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC	
E1E2	CAGAAGACTCCCGCCCATCTT	+67 inser.	-84del TTA	

Figure S5, con't.

B) *Lig3$^{KO/KO}$; MtLig3 ΔBRCT GFP NES*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E1E10	CAGAAGACTCCCGCCCATCTTC		CTCGCCGGATACGGGGGGAGAGAGC
E3D1	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E1C9	CAGAAGACTCCCGCCCATCTTC		CCGGATACGGGGGGAGAGAGC
E3G9	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E4F2	CAGAAGACTCCCGCCCAT	GA	GCTCGCCGGATACGGGGGGAGAGAGC
E1E2	CAGAAGACTCCCGCCCATCT		GCCGGATACGGGGGGAGAGAGC
E1D4	CAGAAGACTCCCGCCCATC		GCCGGATACGGGGGGAGAGAGC
E1H9	CAGAAGACTCCCGCCCATC		GCCGGATACGGGGGGAGAGAGC
E1H5	CAGAAGACTCCCGCCCA		CGCCGGATACGGGGGGAGAGAGC
E1E11	CAGAAGACTCCCGCCCAT		CCGGATACGGGGGGAGAGAGC
E3F1	CAGAAGACTCCCGCCCA		CCGGATACGGGGGGAGAGAGC
E1G1	CAGAAGACTCCCGCCC		GCCGGATACGGGGGGAGAGAGC
E2E12	CAGAAGACTCCC	+225 bp	CTCGCCGGATACGGGGGGAGAGAGC
E1F3	CAGAAGACTCC	GC	CCGGATACGGGGGGAGAGAGC
E2B5	CAGAAGACTCCCGCCCATCTTC	G	GGGGGGAGAGAGC
E3G3	CAGAAGACTCCCGCCCA		TACGGGGGGAGAGAGC
E2F8	CAGAAGAC		CGGATACGGGGGGAGAGAGC
E3F8	CAGAAGACT	T	CCGGATACGGGGGGAGAGAGC
E4H1	CAGAAGACTCC		GATACGGGGGGAGAGAGC
E2G10	CAGAAGACTCCCGCCC		GGGGGGAGAGAGC
E3H3	CAGAAGACTCC	A	GATACGGGGGGAGAGAGC
E1A8	CAGAAGA		GGATACGGGGGGAGAGAGC
E1F2	CAGAAGACTCCCGCCC		GGGGGGAGAGAGC
E3A6	CAG		GCCGGATACGGGGGGAGAGAGC
E3F3	CAGAAGACT		TACGGGGGGAGAGAGC
E4H2	CAGAAGACTCCCG		GGGGAGAGAGC
E4D8	CAGAAGACTCCCGCCCA	AGCTACGG	AGAGAGC
E4G8	CAGA		TACGGGGGGAGAGAGC
E4E9	CAGAAGACTCCCG		GAGAGC
E4H5	CAGA		CGGGGGGAGAGAGC
E3F2	CAGAAGACT		GC
E1C1	CAGGT -40 del		ACGGGGGGAGAGAGC
E3C5	CAGAAGACTC		-69 del TAAGT
E2H8	TTCAA -73 del	+69 bp	ACGGGGGGAGAGAGC
E3D9	GTTA -37 del		-56 del AGTA
E2C3	GCCTG -24 del		-82 del AATTT
E4A6	GAAGT -101 del		-64 del GCAAG

Figure S5, con't.

C) *Lig3$^{KO/KO}$; MtLig1 GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCGGATACGGGGGGAGAGAGC
E2E1	CAGAAGACTCCCGCCCATCTTC	TCT	TCGCCGGATACGGGGGGAGAGAGC
E1C12	CAGAAGACTCCCGCCCATCTTC		GCTCGCCGGATACGGGGGGAGAGAGC
E1bG10	CAGAAGACTCCCGCCCATCTTC		CGCCGGATACGGGGGGAGAGAGC
E1F1	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E1D4	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E1A10	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E2G8	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E1bE5	CAGAAGACTCCCGCCCATCTTC		CCGGATACGGGGGGAGAGAGC
E2A10	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E1E7	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2bF9	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2bC4	CAGAAGACTCCCGCCCATCT		GCCGGATACGGGGGGAGAGAGC
E2bE12	CAGAAGACTCCCGCC		TCGCCGGATACGGGGGGAGAGAGC
E2H10	CAGAAGACTCCCGC		TCGCCGGATACGGGGGGAGAGAGC
E2H5	CAGAAGACTCCCGCCCA	AGACAT	CCGGATACGGGGGGAGAGAGC
E1F4	CAGAAGACTCCCGCCC		CCGGATACGGGGGGAGAGAGC
E2bD2	CAGAAGACTCCCGCCCAT		ATACGGGGGGAGAGAGC
E1A3	CAGAAGACTCCCGCCCATCT		ACGGGGGGAGAGAGC
E1D9	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E2bH3	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E1A1	CAGAAGACTCCCGCCCATC		GGGGGGAGAGAGC
E1H12	CAGAAGACTCCCGCCCATC		ACGGGGGGAGAGAGC
E1A6	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2C4	CAGAAGACTCCCGCCCATCTTCT		GGGAGAGAGC
E1F9	CAGAAGACTCCCGCC		GATACGGGGGGAGAGAGC
E2bA12	CAGAAGACTCCCGCCCA		CGGGGGGAGAGAGC
E1C9	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1C10	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2B8	CAGAAGACTCCCGC		GGGGGAGAGAGC
E1E11	CAGAAGACTCCCG		ATACGGGGGGAGAGAGC
E1G10	CAGAAGACTCCCGCCCA		GGGGGAGAGAGC
E1H8	CAGAAGACTCCCGCCC		GGGGGGAGAGAGC
E1D3	CAGAAGACTCCCGCCCATCTTC	GC	GAGAGC
E2bB12	CAGAAGAC		GGATACGGGGGGAGAGAGC
E1C11	CAGAAGACTCCCGCCCATCTTCT	G	GAGC
E1F2	CAGAAGA		TACGGGGGGAGAGAGC
E1H1	CCC		GGATACGGGGGGAGAGAGC
E1E3	CAGAAGAC		GGGGGAGAGAGC
E1bF2	CAGA		TACGGGGGGAGAGAGC
E1G4	CAGAAGACTCCCG		AGAGC
E2G6	CAGAAGACTCCCGCCC		-26del TTA
E1G2	CAGAAGA		GAGAGAGC
E1G5	CAGAAGACTC	AAG	AGAGC
E2E11 CTG	-26del	GAACTTC	ATACGGGGGGAGAGAGC
E2bF11 CCT	-27del	+160 inser.	CGGGGGGAGAGAGC
E2bC1	CAGAAG		-26del TTA
E2G7	CAGA		CTT
E1H6	CAGAAGACTCCCGCCCAT		-81del AAA
E1H11 TTA	-33del	+29 inser.	-56del TGT
E1bE6 TCT	-111del	+36 inser.	GCCGGATACGGGGGGAGAGAGC

Figure S5, con't.

D) *Lig3$^{KO/KO}$; MtLig1 ΔNLS GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E1E1	CAGAAGACTCCCGCCCATCTTC		GCTCGCCGGATACGGGGGGAGAGAGC
E1H12	CAGAAGACTCCCGCCCATCTT		TCGCCGGATACGGGGGGAGAGAGC
E2E9	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E1B2	CAGAAGACTCCCGCCCATCT		TCGCCGGATACGGGGGGAGAGAGC
E2A2	CAGAAGACTCCCGCCCATCT		TCGCCGGATACGGGGGGAGAGAGC
E1F9	CAGAAGACTCCCGCCCAT	T	GCTCGCCGGATACGGGGGGAGAGAGC
E1G5	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2C10	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E2A10	CAGAAGACTCCCGCCCA		CGCCGGATACGGGGGGAGAGAGC
E2B8	CAGAAGACTCCCGCCCATC		GCCGGATACGGGGGGAGAGAGC
E2G8	CAGAAGACTCCCGCCCATCT		GGATACGGGGGGAGAGAGC
E2B10	CAGAAGACTCCCGCCCATC		CGGATACGGGGGGAGAGAGC
E2B8	CAGAAGACTCCCGCCCATC		CGGATACGGGGGGAGAGAGC
E2C1	CAGAAGACTCCCGCCCATC		CGGATACGGGGGGAGAGAGC
E2B12	CAGAAGACTCCCGCCC		GCCGGATACGGGGGGAGAGAGC
E1D12	CAGAAGACTCCCGCCCA		GATACGGGGGGAGAGAGC
E1G11	CAGAAGACTCCCGCCCATC		GGATACGGGGGGAGAGAGC
E2A4	CAGAAGACTCCCGCCCATC		GGATACGGGGGGAGAGAGC
E1G9	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E2D6	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2D1	CAGAAGACT	TTC	GCTCGCCGGATACGGGGGGAGAGAGC
E2H6	CAGAAGACTCCCG	TAT	CCGGATACGGGGGGAGAGAGC
E3C2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2B7	CAGAAGACTCCCGCCCA		CGGGGGGAGAGAGC
E1H4	CAGAAGACTCCCGC		ATACGGGGGGAGAGAGC
E2B5	CAGAAG		CTCGCCGGATACGGGGGGAGAGAGC
E3C7	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1D5	CAGAAGACTCCCGCCC	GT	ACGGGGGGAGAGAGC
E2B11	CAGAAGACTC		GGGGGGAGAGAGC
E1A5	CAGAA		CCGGATACGGGGGGAGAGAGC
E1C8	CAGAAGACTCCCGCCC		GGGAGAGAGC
E1D7	CAGAAGACTCCCGCCCATC	CAGTTCAGACCT	AGAGAGC
E2D12	CAGAAGACTCCC		GGGGGGAGAGAGC
E2C3	CAGAAGACT		ACGGGGGGAGAGAGC
E3B5	CAGAAGACTCCCGCCCA		AGC
E2H3	CAGAAGAC		GGGGGGAGAGAGC
E2E5	CAG		GAGAGAGC
E1B11	CAGAAGACTCCCG	TATA	C
E2A8	CAGAAGACTCCCGC	AT	-35 del GCG
E1A8	C		GC
E1A11	CTGCC -22 del	GGGGGGAGGCAGGGC	AGC
E3D3	GCAGG -60 del		ATACGGGGGGAGAGAGC
E2B1	CACCA -42 del		-44 del TATGG
E1C7	CAGAAGACTCCCG		-89 del GTTT
E2G9	TGGAA -92 del		CGGGGGGAGAGAGC
E2H10	CGTTA -37 del		-69 del AGTAA
E1B1	CAGAAGACTC	+174 bp	-163 del AATG

Figure S5, con't.

E) *Lig3*$^{KO/KO}$; *Lig3 GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E2D10	CAGAAGACTCCCGCCCATCTTC		GCTCGCCGGATACGGGGGGAGAGAGC
E3F3	CAGAAGACTCCCGCCCATCTTC		GCTCGCCGGATACGGGGGGAGAGAGC
E4F5	CAGAAGACTCCCGCCCATCTTC		CTCGCCGGATACGGGGGGAGAGAGC
E3D11	CAGAAGACTCCCGCCCATCTTC		TCGCCGGATACGGGGGGAGAGAGC
E4B2	CAGAAGACTCCCGCCCATCTTC		TCGCCGGATACGGGGGGAGAGAGC
E4G6	CAGAAGACTCCCGCCCATCT		CTCGCCGGATACGGGGGGAGAGAGC
E5E4	CAGAAGACTCCCGCCCATCT	CC	CTCGCCGGATACGGGGGGAGAGAGC
E2C9	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E4B4	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E5G11	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E4G12	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E5G12	CAGAAGACTCCCGCCCAT		TCGCCGGATACGGGGGGAGAGAGC
E4H3	CAGAAGACTCCCGCCCAT		CGCCGGATACGGGGGGAGAGAGC
E4F2	CAGAAGACTCCCGCCCATC	G	GCCGGATACGGGGGGAGAGAGC
E3C2	CAGAAGACTCCCGCCC		TCGCCGGATACGGGGGGAGAGAGC
E3H7	CAGAAGACTCCCGCCC		TCGCCGGATACGGGGGGAGAGAGC
E5C10	CAGAAGACTCCCGCCCA	AAGACAT	CCGGATACGGGGGGAGAGAGC
E4E8	CAGAAGACTCCCGCCCA	A	CCGGATACGGGGGGAGAGAGC
E2F12	CAGAAGACTCCCGCCCA		CGGATACGGGGGGAGAGAGC
E2E8	CAGAAGACTCCCGCCC	+21bp	CGGATACGGGGGGAGAGAGC
E2G8	CAGAAGACTCCCGCCCATCT	CGGCCGGG	TACGGGGGGAGAGAGC
E4A5	CAGAAGACTCCCGCCC	TGTCAGTTAA	CGGATACGGGGGGAGAGAGC
E5B11	CAGAAGACTC		TCGCCGGATACGGGGGGAGAGAGC
E2E1	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3F2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3F4	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3G11	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3B12	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E4B8	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E5H2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E5B7	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E4B10	CAGAAGACTCCCGCCCATCT		GGGGGGAGAGAGC
E2F6	CAGAAGACTCCCG		GGGGGAGAGAGC
E3C5	CAGAAGACTCCC	T	CCGGATACGGGGGGAGAGAGC
E2C6	CAGAAGACTCCCGCC		ATACGGGGGGAGAGAGC
E4E11	CAGAAGACTCC		CGGATACGGGGGGAGAGAGC
E5A9	CAGAAGACTCCCGC	A	GATACGGGGGGAGAGAGC
E4E7	CAGAAGACTCCC		GGATACGGGGGGAGAGAGC
E2E11	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E5F9	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2A7	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E4D2	CAGAAGACTCCCGCCC	CGG	GGGGGGAGAGAGC
E3F5	CAGAAGACT		GGATACGGGGGGAGAGAGC
E3A12	CAGAAG		CCGGATACGGGGGGAGAGAGC
E3H12	CAGAAGA	TAC	GGATACGGGGGGAGAGAGC
E5E9	CAGAA	AACTC	CCGGATACGGGGGGAGAGAGC
E2D9	CAGAAGACTCCC	TCGGATCA	GGGGGAGAGAGC
E5D3	CAGAAGACTCCCG		GGGAGAGAGC

Figure S5, con't.

E) *Lig3$^{KO/KO}$; Lig3 GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E2B2	CAGAAGA		TACGGGGGGAGAGAGC
E4F7	CAGAAGA		TACGGGGGGAGAGAGC
E4C12	CAGAAGA		TACGGGGGGAGAGAGC
E2C10	CAGAAG		TACGGGGGGAGAGAGC
E2A12	CAGAAGACT	G	CGGGGGGAGAGAGC
E3D6	CAG		GATACGGGGGGAGAGAGC
E5A12	CAGAAGAC		GGGGGGAGAGAGC
E5E11	CAGAAGACTCCCGCCCAT		-25 del TTAAG
E5G8	CAGA		TACGGGGGGAGAGAGC
E3H5	TGCC -22del		GGATACGGGGGGAGAGAGC
E2C7	CAGAAGA	A	GGGGGAGAGAGC
E3D1	CAGAAGACTCCCGCCC	+265bp	AGC
E5B2	CAGAAGA	TACA	GGGGGAGAGAGC
E4C3	CAGAAGACTCCCGCCCAT	G	-28 del AGTTC
E4G11	CCTG -24del		GGGGGAGAGAGC
E4A4	CAGAAGACT		-26 del TAAGT
E3B10	CAGAA		-27 del AAGTT
E5B4	CAGAAG		-30 del TTGAA
E3H9	CAGAAG		-37 del CGGTT
E2H1	TTAAG -29 del		-30 del TTGAA
E4H1	TAGC -35 del		-25 del TTAAG
E4H4	TAGC -35 del		-25 del TTAAG
E3G1	GTTA -37 del		-28 del AGTTG
E2G10	CCGG -68 del		GGGGAGAGAGC
E4F4	CAGAAGACTCCCG		-140 del TCATT
E5A3	ACCT -78 del		-84 del TTGGT

Figure S5, con't.

F) *Lig3$^{KO/KO}$; Lig3 ΔZnF GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E4D6	CAGAAGACTCCCGCCCATCTTC		TCGCCGGATACGGGGGGAGAGAGC
E4H4	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E7D11	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E5H2	CAGAAGACTCCCGCCCATCTTC	+30 bp	GCCGGATACGGGGGGAGAGAGC
E4C5	CAGAAGACTCCCGCCC		TCGCCGGATACGGGGGGAGAGAGC
E1A5	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2G2	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E5E5	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E1C3	CAGAAGACTCCCGCCCAT	G	GCTCGCCGGATACGGGGGGAGAGAGC
E5A3	CAGAAGACTCCCGCCCATC		GCCGGATACGGGGGGAGAGAGC
E2G12	CAGAAGACTCCCGCCCATC	CAGTT	GCCGGATACGGGGGGAGAGAGC
E5C4	CAGAAGACTCCCGCCCAT		GCCGGATACGGGGGGAGAGAGC
E4B1	CAGAAGACTCCCGCCCA	+288 bp	CGCCGGATACGGGGGGAGAGAGC
E3A6	CAGAAGACTCCCGCCCATC		CGGATACGGGGGGAGAGAGC
E1E6	CAGAAGACTCCCGCCCATCT	+25 bp	GGATACGGGGGGAGAGAGC
E5F12	CAGAAGACTCCCGCCC	+300 bp	GCCGGATACGGGGGGAGAGAGC
E7A6	CAGAAGACTCCCGCCC		CCGGATACGGGGGGAGAGAGC
E2D7	CAGAAGACTCCCGCCC		CGGATACGGGGGGAGAGAGC
E6C10	CAGAAGACTCCC		TCGCCGGATACGGGGGGAGAGAGC
E4G7	CAGAAGACTCCCG		CCGGATACGGGGGGAGAGAGC
E1D8	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1A9	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2A4	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3B9	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E5D2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E6A1	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E7C4	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2E2	CAGAAGACTCCCGCCCAT	TG	GGGGGGAGAGAGC
E7C10	CAGAAGACTCCCGCCCATCTTC		GGGGGGAGAGAGC
E6B11	CAGAAGACTCCCGC	+312 bp	GGATACGGGGGGAGAGAGC
E6A3	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E2B9	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E5F10	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E6A4	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E7A4	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E6A11	CAGAAGACTCC		GGATACGGGGGGAGAGAGC
E6D1	CAGAAGACT	+261 bp	CCGGATACGGGGGGAGAGAGC
E7F7	CAGAAGACTCCCGCCCAT		GGGGGGAGAGAGC
E3B5	CAGAAG	+260 bp	CCGGATACGGGGGGAGAGAGC
E4C8	CAGAAGACTCCCG		GGGGGGAGAGAGC
E3D9	CAGAAGACTCCCG		GGGGGGAGAGAGC
E2C11	CAGAAG		C
E4G9	CAGAAGACTCCC		ATACGGGGGGAGAGAGC
E3D7	CAGAAGACTCCCGCCCA		GAGC
E2G7	CAGAAGACTC	+23 bp	GAGAGAGC
E7F5	CAGAAGA		GAGC

Figure S5, con't.

F) *Lig3$^{KO/KO}$; Lig3 ΔZnF GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E6E1	CAGA		GGAGAGAGC
E3H10	CAGAAGA		GAGC
E4F12	CAGA		GAGAGC
E7D4	AGCCT -25 del	TTTTCA	GAGAGAGC
E2H11	CAGAAG		-37 del CGGGT
E7B12	CAGAAG		-37 del CGGTT
E2H12	CAGAAGACTCCCGCCCA	+75 bp	-66 del GTAAA
E6D12	TAGC -35 del		-38 del GGTTT
E7B2	CCAGG -39 del		-47 del CATTT
E1H7	TCCAA -88 del		GATACGGGGGGAGAGAGC
E1B8	ACCG -118 del		GATACGGGGGGAGAGAGC
E3C3	CAGAAGACTCCCGC	+152 bp	-132 del ACTTA
E7B8	CCCAT -158 del	+142 bp	GGGGAGAGAGC
E3B12	CAG		-199 del TGATG

Figure S5, con't.

G) *Lig3*$^{KO/KO}$; *Lig3 ΔBRCT GFP*

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E3C5	CAGAAGACTCCCGCCCATCTTC		CTCGCCGGATACGGGGGGAGAGAGC
E1E3	CAGAAGACTCCCGCCCATCTTC		TCGCCGGATACGGGGGGAGAGAGC
E2B7	CAGAAGACTCCCGCCCATCTTC		TCGCCGGATACGGGGGGAGAGAGC
E2G10	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E3A2	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E1A1	CAGAAGACTCCCGCCCATC		GCTCGCCGGATACGGGGGGAGAGAGC
E3C4	CAGAAGACTCCCGCCCATC	GC	GCTCGCCGGATACGGGGGGAGAGAGC
E1E2	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2D4	CAGAAGACTCCCGCCCAT	A	GCTCGCCGGATACGGGGGGAGAGAGC
E3D1	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E1C2	CAGAAGACTCCCGCCCATCT		GCCGGATACGGGGGGAGAGAGC
E3F1	CAGAAGACTCCCGCCCATCTTC		CGGATACGGGGGGAGAGAGC
E2F8	CAGAAGACTCCCGCCCATC		GCCGGATACGGGGGGAGAGAGC
E3C3	CAGAAGACTCCCGCCCATC		GCCGGATACGGGGGGAGAGAGC
E1D1	CAGAAGACTCCCGCCC	+28 bp	CGCCGGATACGGGGGGAGAGAGC
E3B6	CAGAAGACTCCCGCCCATC		GGATACGGGGGGAGAGAGC
E3F6	CAGAAGACTCCCGCCCA		CGGATACGGGGGGAGAGAGC
E1F6	CAGAAGACTCCCGCCCATCTTC		ACGGGGGGAGAGAGC
E3B2	CAGAAGACTCCCGCCCATCTTT	GCCGGG	TACGGGGGGAGAGAGC
E1F3	CAGAAGACTCCCGCCCATCTTC		GGGGGGAGAGAGC
E1H12	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E3F7	CAGAAGACTCCCGCCCA		ATACGGGGGGAGAGAGC
E1D4	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1E9	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2F2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2G5	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3C1	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E3F11	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2C1	CAGAAGACTCCCG	TAT	CCGGATACGGGGGGAGAGAGC
E2A12	CAGAAGACTCCC	C	CCGGATACGGGGGGAGAGAGC
E3G12	CAGAAGACTCCCG		GGATACGGGGGGAGAGAGC
E1B7	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1H9	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2C5	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2D11	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E3E4	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E3F8	CAGAAGACTCC	+381 bp	GATACGGGGGGAGAGAGC
E2B2	CAGAAGACTCCCGCC		GGGGGGAGAGAGC
E2A9	CAGAAGACTCCCGCC		GGGGGGAGAGAGC
E1H3	CAGAAGACTCCCGC		GGGGGGAGAGAGC
E2D12	CAGAAGACTCCC		GGGGGGAGAGAGC
E1E6	CAGAAGAC		GGGGGGAGAGAGC
E2H5	CAGAAGAC		GGGGGGAGAGAGC
E3B3	CAG		GGGAGAGAGC
E1C9	GCCT -25 del		GGGGGGAGAGAGC
E1A4	CAGA		GAGAGC
E2H2	GCCT -25 del	+33 bp	GGGGGGAGAGAGC
E1H10	CTGC -23 del		-25 del TTAAG
E3H12	CAG		-30 del TTGAA

Figure S5, con't.

G) *Lig3$^{KO/KO}$; Lig3 ΔBRCT GFP*

Translocation clones	Chr. 6 CAGAAGACTCCCGCCCATCTTC	Chr. 11 CTCGCCGGATACGGGGGGAGAGAGC
E1C6	GTTAG -36 del	GGGGAGAGAGC
E2A3	GCCTT -24 del	-27 del AAGTT
E3A9	CAGAAG	-36 del CGGTT
E2H6	TAGC -35 del	-25 del TTAAG
E1A12	TTTAAG -30 del	-30 del TTGAA
E1A5	GGTTA -37 del	-28 del AGTTG
E3D6	GCCTT -32 del	+39bp -54 del TGTAG

Translocation junctions

Figure S5, con't.

H) Xrcc4–/–

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E2F9	CAGAAGACTCCCGCCCATCTTC		CTCGCCGGATACGGGGGGAGAGAGC
E1C6	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E2A1	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E2B8	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E2G5	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2C10	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2D5	CAGAAGACTCCCGCCCAT		GCTCGCCGGATACGGGGGGAGAGAGC
E1G10	CAGAAGACTCCCGCCCATCT		CGCCGGATACGGGGGGAGAGAGC
E2F1	CAGAAGACTCCCGCCC	C	GCTCGCCGGATACGGGGGGAGAGAGC
E2C8	CAGAAGACTCCCGCC		GCTCGCCGGATACGGGGGGAGAGAGC
E2E10	CAGAAGACTCCCGCCCATCT		GGATACGGGGGGAGAGAGC
E1F6	CAGAAGACTCCCGCCCATC		CGGATACGGGGGGAGAGAGC
E1F7	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1A12	CAGAAGACTCCCGCCC		CCGGATACGGGGGGAGAGAGC
E2F3	CAGAAGACTCCCGCCCAT		GGATACGGGGGGAGAGAGC
E1D4	CAGAAGACTCCCGCCCAT	TAT	GGATACGGGGGGAGAGAGC
E1A5	CAGAAGACTCCCGCC	GTGATCT	GCCGGATACGGGGGGAGAGAGC
E2C2	CAGAAGACTCCCGCC	GTGATCT	GCCGGATACGGGGGGAGAGAGC
E1F8	CAGAAGACTCCCGCCC		CGGATACGGGGGGAGAGAGC
E2E1	CAGAAGACTCCCGCCC		CGGATACGGGGGGAGAGAGC
E2D6	CAGAAGACTCCCGCCCATCT		ACGGGGGGAGAGAGC
E1B2	CAGAAGACTCCCGCCCATC		TACGGGGGGAGAGAGC
E1B5	CAGAAGACTCCCGCCCA		GATACGGGGGGAGAGAGC
E1G12	CAGAAGACTCCCGCCCATCTTC		GGGGGGAGAGAGC
E1A2	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E1E7	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E2E3	CAGAAGACTCCCGCCC		GGATACGGGGGGAGAGAGC
E1F4	CAGAAGACTCCCGCC	+355 bp	CGGATACGGGGGGAGAGAGC
E2H7	CAGAAGACTCCCGCC	+213 bp	CGGATACGGGGGGAGAGAGC
E2B11	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1F1	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1G1	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1A6	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E1D12	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2F2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2A4	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2A2	CAGAAGACTCCCGCCCATC		CGGGGGGAGAGAGC
E1H5	CAGAAGACTCCCGCCCAT		ACGGGGGGAGAGAGC
E1A11	CAGAAGACTCCCGC	ACG	GGATACGGGGGGAGAGAGC
E2H1	CAGAAGACTCCCGC	ATG	GGATACGGGGGGAGAGAGC
E2E9	CAGAAGACTCCCGC	A	GGATACGGGGGGAGAGAGC
E1D3	CAGAAGACTCCC		CGGATACGGGGGGAGAGAGC
E1H4	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E1A8	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E2G8	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E1A3	CAGAAGACTCCG		GATACGGGGGGAGAGAGC
E1E8	CAGAAGACTCCG		GATACGGGGGGAGAGAGC
E2C3	CAGAAGACTCCG		GATACGGGGGGAGAGAGC
E2G6	CAGAAGACTCCG		GATACGGGGGGAGAGAGC

Figure S5, con't.

H) Xrcc4–/–

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E1C4	CAGAAGACTCCC	CCC	GGATACGGGGGGAGAGAGC
E2E5	CAGAAGACTCCC		GATACGGGGGGAGAGAGC
E1F12	CAGAAGAC		GCCGGATACGGGGGGAGAGAGC
E1A4	CAGAAGACTC	CTGCCAGAAGACTC	CGGATACGGGGGGAGAGAGC
E1H11	CAGAAGACTCCCGCC	GGAGT	CGGGGGGAGAGAGC
E1C5	CAGAAGACTC		GATACGGGGGGAGAGAGC
E2G4	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E2G11	CAGAAGACTCCCGC		GGGAGAGAGC
E1H2	CAGAAGAC	CCCG	GATACGGGGGGAGAGAGC
E2G3	CAGAAGACTCCCG		GGGGGAGAGAGC
E2B1	CAGAAG		GATACGGGGGGAGAGAGC
E1C10	CAGAAGACT		ACGGGGGGAGAGAGC
E2A8	CAGAAGACTCCCGCCCA		GC
E2H4	CAGAA		GGGGGAGAGAGC
E2H2	CA	CC	ACGGGGGGAGAGAGC
E2D10	CAGA		GAGAGC
E2E7	TAGCC -31 del		GGATACGGGGGGAGAGAGC
E2B12	TAGCC -31 del		GGATACGGGGGGAGAGAGC
E2D7	CTTTA -27 del	GGATAC	GGGGGAGAGAGC
E2A7	CAG		GAGAGC
E1C9	AGCCT -33 del	+29 bp	CGGATACGGGGGGAGAGAGC
E1H12	CAG		AGAGC
E1D9	CAGA		GAGC
E1H3	CAGA		GC
E1B8	CAGAAGACTCCCG	AG	-35 del GCGGT
E1C2	CAGG -40 del		ATACGGGGGGAGAGAGC
E2A11	CACAC -46 del		CGGATACGGGGGGAGAGAGC
E1F3	CAGAAG		-37 del CGGTT
E2D8	CAGAAG		-37 del CGGGT
E2D12	CAGAAG		-37 del CGGGT
E1B4	TTAGC -35del	+136 bp	GAGC
E1E5	TAATA -208 del		CGGATACGGGGGGAGAGAGC

Figure S5, con't.

I) *Lig3*$^{KO/KO}$; *Lig3 GFP* + scrambled shRNA

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E2A3	CAGAAGACTCCCGCCCATCTTC	T	TCGCCGGATACGGGGGGAGAGAGC
E1A7	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E1G12	CAGAAGACTCCCGCCCATCTTC		GCCGGATACGGGGGGAGAGAGC
E1F8	CAGAAGACTCCCGCCCATCTTC	A	CGGATACGGGGGGAGAGAGC
E2E10	CAGAAGACTCCCGCCCAT	T	CTCGCCGGATACGGGGGGAGAGAGC
E2G11	CAGAAGACTCCCGCCCATCT		CCGGATACGGGGGGAGAGAGC
E2E12	CAGAAGACTCCCGCCC		CTCGCCGGATACGGGGGGAGAGAGC
E2D11	CAGAAGACTCCCGCCCATCTT		CGGATACGGGGGGAGAGAGC
E2H12	CAGAAGACTCCCGCCCATC		GGATACGGGGGGAGAGAGC
E1C9	CAGAAGACTCCCGCC	+716 bp	CCGGATACGGGGGGAGAGAGC
E1B5	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2A2	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2C9	CAGAAGACTCCCGCC		GGATACGGGGGGAGAGAGC
E2C10	CAGAAGACTCCCGCCCAT		ACGGGGGGAGAGAGC
E2E1	CAGAAGACTCCCGCCC	AGA	ATACGGGGGGAGAGAGC
E1F1	CAGAAGACTC		GCCGGATACGGGGGGAGAGAGC
E1G8	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1H12	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E2A6	CAGAAGACTCCCG		GATACGGGGGGAGAGAGC
E1G3	CAGAAGACT		GGATACGGGGGGAGAGAGC
E2B11	CAGAAGAC	AT	CCGGATACGGGGGGAGAGAGC
E2F5	CAGAAGACTCCCG		GGGAGAGAGC
E2E6	CAGAAGA		TACGGGGGGAGAGAGC
E2B4	CAGAAGAC		GGGGGGAGAGAGC
E1H4	CAGAAG	G	ACGGGGGGAGAGAGC
E1C7	CAGA		TACGGGGGGAGAGAGC
E2A1	CAGAAGA		GGAGAGAGC
E1C11	CAGAAGACTCCCG	AG	GC
E1H6	CAGAAGACTCCCGC	ACG	-25 del TTAAC
E2E8	CAGAAGA		GAGC
E1F9	CAGAAGACTC		-26 del TAAGT
E1C6	CAGAAGA		-28 del GTTGA
E2A7	CAGAAG		-29 del TTGAA
E2E5	CAGAAG		-31 del CGGTT
E2C3	CAGGT -40 del		ACGGGGGGAGAGAGC
E2H9	CAGAAGAC		-110 del AATTG
E1E3	GCAGG -60 del	TGCACACCTG	-96 del TTGTA

Figure S5, con't.

J) *Lig3*$^{KO/KO}$; *Lig3 GFP* + Lig1 shRNA

Translocation clones	Chr. 6	Chr. 11
	CAGAAGACTCCCGCCCATCTTC	(G)CTCGCCGGATACGGGGGGAGAGAGC
E1H5	CAGAAGACTCCCGCCCATCTTC	CTCGCCGGATACGGGGGGAGAGAGC
E2C1	CAGAAGACTCCCGCCCATCTT	GCTCGCCGGATACGGGGGGAGAGAGC
E3B3	CAGAAGACTCCCGCCCATC	CTCGCCGGATACGGGGGGAGAGAGC
E3E1	CAGAAGACTCCCGCCCATCTTC	GCCGGATACGGGGGGAGAGAGC
E3B2	CAGAAGACTCCCGCCCATCTTC	GCCGGATACGGGGGGAGAGAGC
E2H10	CAGAAGACTCCCGCCCATCT	CGCCGGATACGGGGGGAGAGAGC
E3C2	CAGAAGACTCCCGCCCATCT	CGCCGGATACGGGGGGAGAGAGC
E2F10	CAGAAGACTCCCGCCCAT	GCTCGCCGGATACGGGGGGAGAGAGC
E2A6	CAGAAGACTCCCGCCCATC	CGCCGGATACGGGGGGAGAGAGC
E3G5	CAGAAGACTCCCGCCCA	CTCGCCGGATACGGGGGGAGAGAGC
E1C4	CAGAAGACTCCCGCCCATC	CGGATACGGGGGGAGAGAGC
E3H1	CAGAAGACTCCCGCCCATCT	CCGGATACGGGGGGAGAGAGC
E2B1	CAGAAGACTCCCGCCCAT	ACGGGGGGAGAGAGC
E1D2	CAGAAGACTCCCGCCCAT	GCCGGATACGGGGGGAGAGAGC
E3D10	CAGAAGACTCCCGCCCATC	CCGGATACGGGGGGAGAGAGC
E2C10	CAGAAGACTCCCG	CTCGCCGGATACGGGGGGAGAGAGC
E2D6	CAGAAGACTCCCGCCC	GGATACGGGGGGAGAGAGC
E2G12	CAGAAGACTCCCGCCC	GGATACGGGGGGAGAGAGC
E1A11	CAGAAGACTCCCG	T GCCGGATACGGGGGGAGAGAGC
E3E3	CAGAAGACTCCCGCCCATCTTC	+183 bp GGGGGGAGAGAGC
E1B7	CAGAAGACTCCCGCC	GGATACGGGGGGAGAGAGC
E1H12	CAGAAGACTCCCGCC	GGATACGGGGGGAGAGAGC
E2H1	CAGAAGACTCCCGCC	GGATACGGGGGGAGAGAGC
E3F4	CAGAAGACTCCCGCC	GGATACGGGGGGAGAGAGC
E3F7	CAGAAGACTCCCGCC	GGATACGGGGGGAGAGAGC
E3E11	CAGAAGACTCCCGCC	GGATACGGGGGGAGAGAGC
E2H4	CAGAAGACTCCCGCCCA	TACGGGGGGAGAGAGC
E2E11	CAGAAGACTCCCGCCCA	TACGGGGGGAGAGAGC
E1B3	CAGAAGACTCCCGCCCAT	ACGGGGGGAGAGAGC
E3A9	CAGAAGACTCCCGCCCA	ACGGGGGGAGAGAGC
E3E8	CAGAAGACTCCC	CGGATACGGGGGGAGAGAGC
E1F5	CAGAAGACTC	GCCGGATACGGGGGGAGAGAGC
E1E12	CAGAAGACTCCCG	GATACGGGGGGAGAGAGC
E2A5	CAGAAGACTCCCG	GATACGGGGGGAGAGAGC
E2E7	CAGAAGACTCCCG	GATACGGGGGGAGAGAGC
E2A1	CAGAAGACTCCCGCCCA	CGGGGGGAGAGAGC
E3C5	CAGAAGACTC	GCCGGATACGGGGGGAGAGAGC
E3F10	CAGAAGACTCCCG	GGGGAGAGAGC
E1A8	CAGAAGA	GAGAGC
E2B8	CAGAA	TACGGGGGGAGAGAGC
E1A12	TTAAG -28 del	+48 bp CGGATACGGGGGGAGAGAGC
E1F10	CAGAA	GAGAGAGC
E1B4	CAGAAGACTCC	-25 del TTAA(
E1C2	CAGAA	GAGAGC
E1C7	CAGA	GC
E2H8	CAGA	GC

Figure S5, con't.

J) *Lig3*$^{KO/KO}$; *Lig3 GFP* + Lig1 shRNA

Translocation clones	Chr. 6	Translocation junctions	Chr. 11
	CAGAAGACTCCCGCCCATCTTC		(G)CTCGCCGGATACGGGGGGAGAGAGC
E3G12	CAGA		GC
E2A12	CAGAAG		-37 del CGGTT
E1C3	AGGTT -30 del	+55bp	-32 del GAAGC
E2D10	GCCTT -33 del		-32 del GAAGC
E3E2	CACCA -43 del	TAGCATTTAAGTGGGAAGATT	-25 del TTAAG
E1F9	CAGGA -59 del		GC
E1F1	CAGAAGACTCCCG		-89 del AAGTA
E3H9	CAGA	GTCTTCCATCGAGGTA	-161 del GATGA
E3B11	CCTAT -175 del		ACGGGGGGAGAGAGC