

## Supplementary Tables

### Supplementary Table 1.

<b>primer</b>	<b>sequence</b>	<b>assay</b>
MYC_exon1_fw	AGGCTCTCCTTGCAGCTGCTTA	RT_qPCR
MYC_exon2_rv	GCTAACGTTGAGGGGCATCGTC	RT_qPCR
PVT1_exon1_fw	GAAAGGATGTTGGCGGTCCCTG	RT_qPCR
total_MYC_exon2_fw	TCCACCTCCAGCTTGTACCT	RT_qPCR
total_MYC_exon2_rv	CGTCGAGGAGAGCAGAGAAT	RT_qPCR
GAPDH_fw	GGAGCGAGATCCCTCCAAAAT	RT_qPCR
GAPDH_rv	GGCTGTTGTCATACTTCTCATGG	RT_qPCR
18S_fw	TAAAGGAATTGACGGAAGGGCA	RT_qPCR
18S_rv	ATCTGTCAATCCTGTCCGTGTC	RT_qPCR
MYC_exon3_fw	GGCTCCTGGCAAAGGTCA	RT_qPCR
MYC_exon3_rv	CTGCGTAGTTGTGCTGATGT	RT_qPCR
FGFR2_fw	GGTCGTTTCATCTGCCTGGT	RT_qPCR
FGFR2_rv	CCTTCCCGTTTTTCAGCCAC	RT_qPCR

Supplementary Table 2.

ID	gRNA_sequence	gRNA_info
1	GCCTCCGGGCAGAGCGCGTG	sgPVT1, targets PVT1 TSS in <b>Extended Data Figure 4i</b>
2	GGAATAGGGGGCTTCGCCTC	sgMYC, targets MYC TSS in <b>Extended Data Figure 4i</b>
3	GATGGATGGACCACAACAGGG	sgRNA1, targets enhancer in <b>Extended Data Figure 4i</b>
4	GGTTTCCTTATCTATGAACCG	sgRNA2, targets enhancer in <b>Extended Data Figure 4i</b>
5	GAGTGCATTAGAGGTACACAG	sgRNA3, targets enhancer in <b>Extended Data Figure 4i</b>
6	GATAAAAAGTGCCCGACAATG	sgRNA4, targets enhancer in <b>Extended Data Figure 4i</b>
7	GGGTTGGACTGATGACCTCAG	sgRNA5, targets enhancer in <b>Extended Data Figure 4i</b>
8	GAGGTTTGGAGACATACACAT	sgRNA6, targets enhancer in <b>Extended Data Figure 4i</b>
9	GAACGACTAGTTAGGCGTGTA	sgGal4, non-targeting guide in RNA-seq experiment
10	GGAGAGCTTGTGGACCGAGC	MYC ecDNA TetO insertion
11	GGGATCACTAGCATGTCTG	BRD4 HaloTag knockin
12	CCAGCAATCGTTAACCACTG	PFGE_guide_A, used in in vitro Cas9 ecDNA digestion
13	CTTCGGGGAGACAACGACGG	PFGE_guide_B, used in in vitro Cas9 ecDNA digestion
14	GTCTTGCTAGACTATACCAG	PFGE_guide_C, used in in vitro Cas9 ecDNA digestion