

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Genomic data sources.

File Name: Supplementary Data 2

Description: Oncogene regulatory diversity (ORD) scores across biochemical feature and bin size.

File Name: Supplementary Data 3

Description: *MYC* CREs identified in this study and previously identified *MYC* enhancers.

File Name: Supplementary Data 4

Description: Fold enrichment for transcription factor association analyses.

File Name: Supplementary Data 5

Description: Spearman correlation between gene expression and *MYC* expression from The Cancer Genome Atlas (TCGA) primary tumors.

File Name: Supplementary Data 6

Description: Cell culture conditions and puromycin selection concentrations.

File Name: Supplementary Data 7

Description: Oligonucleotide sequences for CRISPR guide RNAs and qPCR primers.

File Name: Supplementary Data 8

Description: *MYC* TAD CRISPRi library with genome-targeting and control guide RNAs.

File Name: Supplementary Data 9

Description: CRISPRi scores (negative log₂ fold-change) for A375, K562, A549, HT29, PC-9, and MDA-MB-231 cell lines.