

## Supplemental Table S1: Oligonucleotide sequences used in the study

### Primers used for ChIP-qPCRs

CTCF sites	Forward Primer (5'-3')	Reverse Primer (5'-3')
-T2	TAAATCTCCTGCCAGGAGG	GGCAGGTTCCATTTACTTTGAG
-T1	GGCAGTACTGAGTTGACAC	CCCAGGAAACTGGACCTCTAA
B1	AGCTCTCTGCACCACATTGCCACTGCC	CCAACTACCTCCGCAAGGACACC
B2	TTGAGGACATCTAGCGGCG	GCTGCAGATTCTGGAATGAGC
B3	GTCAGGACTAGGCCATCTGAC	TAGGTGTCCAAGTGAAGATTAAGAG
+T1	CAACTCCTCCGAGTGAAA	ACACTGTGACCGCTCCATTC
+T2	GCATAGATGTTTGAGGGGCAAC	TTACAGAATCTGGCTACTGCC
INK4a	TCGCCAGGAGGAGGTCTGTGATTAC	CAGGTGGGTAGAGGGTCTGCAGC
ARF	ACCCAGGATATTCGGGACTCACTGAC	CGTCTAGCCCAGGCTAGGAGG
INK4b	CCGTCGTCCTCTGCGGCTTG	AGTGAGGACTCCGCGACGCGT
MYC C1	TGTTTTAAGGAACCGCTGTCC	CTGGATTTTCTGCAAAAGCGT
MYC C2	AGGGAGGGATCGCGCTGAGT	CGAAGCCCCCTATTCTGCTCCGGATC
MYC C3	CTGCACCCTGAGAAATAGTGGTG	AGGTCTGTCTGGCTCCACATC

### Primers used for qRT-PCRs

mRNA/bRNA	Forward Primer (5'-3')	Reverse Primer (5'-3')
<i>MTAP</i>	TTGACAGGACCACTATGAGACCTC	AGGTCCCTCGATTGTGACCATT
<i>INK4a</i>	ATGGAGCCTTCGGCTGACT	CACCAGCGTGTCCAGGAAG
<i>ARF</i>	AACATGGTGCGCAGGTCT	CACCAGCGTGTCCAGGAAG
<i>INK4b</i>	CGTTAAGTTTACGGCCAACG	CCATCATCATGACCTGGATCG
<i>DDX5</i>	CCTACCTGTCTTGTATGAAGC	CACTCAGTTCAAGTGACCA
<i>CTCF</i>	TACAAACACACCCACGAGAAG	GGGTAACCGAGCATGACAA
b1S	CCACAGCAGAATAGAGCACC	AAGTCCAGCCAGTCTCAGCA
b1AS	TGAGGCTTGTAGGAACTCAAGTTC	AGTGGCAATGTGGTGCAGAG
b2S	ACAGAGGTCGGATGTTCTGTG	TAAACCGCCGCTAGATGTCC
b2AS	CTCCTGAGCTCTAAGTGAATAGAGG	GGTTATCACTCACAGTCTCTTACG
sno RNA	CGTGTAGAGCACCGAAAACC	CACTCAGACCGGTTCTCTC
pre c-MYC	CTTCTCTCCGCTCGGATTC	CCTTCTAATAAGAGTGGCCCG
<i>GAPDH</i>	CGCTCTCTGCTCCTCTGTT	CCATGGTGTCTGAGCGATGT
18SrRNA	GTAACCCGTTGAACCCATT	CCATCCAATCGGTAGTAGCG
<i>CASC8</i>	CCTTCAGGTTTCACTCAGAAATG	GGCAGGCAGAACTGAACAAGAT
<i>MYC</i>	GAGGAGACATGGTGAACCAGAG	CCAGCTTCTGAGACGAGC
<i>PVT1</i>	GGATTCTTACAGCTTGGATGTCC	TCCAGGGAGTATGGTCAGCT
<i>ASAP1</i>	TGGAGAGCAGAGTGCGGGAG	GTTGAAAGCCAGGTGGGTTTC
mycS	TCAGGGCTAACAGACGCCT	AACCAGCAACGCATTGCCACGTA
mycAS	GCATCCTTGTCTGTGAGTAT	TTCTTTCTCCACTCTCCCTG
Chr11 bRNA	GTTACTGATAAGGACGCGAGCT	CAGAGTAAGCGCTCAATAAATGG

**shRNAs used for knockdown**

<b>shRNA</b>	<b>Primer sequence (5'-3')</b>
shRNA1 Boundary 1 S F	CCGGGAGTTGTGAGACCCTCATTTCTCGAGGAAATGAGGGTCTCACAACTCTTTTTG
ShRNA1 Boundary 1 S R	AATTCAAAAAGAGTTGTGAGACCCTCATTTCTCGAGGAAATGAGGGTCTCACAACTC
ShRNA2 Boundary 1 S F	CCGGGGACCCTGAGCTGTGAATAACCTCGAGTTATTACAGCTCAGGGTCTTTTTG
ShRNA2 Boundary 1 S R	AATTCAAAAAGACCCTGAGCTGTGAATAACCTCGAGTTATTACAGCTCAGGGTCC
ShRNA3 Boundary 1 S F	CCGGGAGTCTAGCCAGGTAATTTCTCGAGAATATTACCTGGCTAGGACTCTTTTTG
shRNA3 Boundary 1 S R	AATTCAAAAAGAGTCTAGCCAGGTAATTTCTCGAGAATATTACCTGGCTAGGACTC
shRNA1 Boundary 1 AS F	CCGGCTGGCTCCGGCTGGTTTAAATCTCGAGATTTAAACCAGCCGGAGCCAGTTTTTG
ShRNA1 Boundary 1 AS R	AATTCAAAACTGGCTCCGGCTGGTTTAAATCTCGAGATTTAAACCAGCCGGAGCCAG
ShRNA2 Boundary 1 AS F	CCGGCGGCTCTGCTTTCAGCTATAACTCGAGTTATAGCTGAAAGCAGAGCCGTTTTTG
ShRNA2 Boundary 1 AS R	AATTCAAAAACGGCTCTGCTTTCAGCTATAACTCGAGTTATAGCTGAAAGCAGAGCCG
ShRNA3 Boundary 1 AS F	CCGGAGGTAAGATGTAAGCATTAACTCTCGAGATTAATGCTTACATCTTACCTTTTTTG
shRNA3 Boundary 1 AS R	AATTCAAAAAGGTAAGATGTAAGCATTAACTCTCGAGATTAATGCTTACATCTTACCT
shRNA1 Boundary 2 S F	CCGGCGCAATCCAACCTATTCAATTTCTCGAGAAATTGAATAGTTGGATTGCGTTTTTG
ShRNA1 Boundary 2 S R	AATTCAAAAACGCAATCCAACCTATTCAATTTCTCGAGAAATTGAATAGTTGGATTGCG
ShRNA2 Boundary 2 S F	CCGGGCTTCTCGAAGGAGAGTAATCTCGAGATTACTCTCCTTCAGGAAAGCTTTTTG
ShRNA2 Boundary 2 S R	AATTCAAAAAGCTTCTCGAAGGAGAGTAATCTCGAGATTACTCTCCTTCAGGAAAGC
ShRNA3 Boundary 2 S F	CCGGTAGCAATGGCAGAACCTATTTCTCGAGAAATAGTTTCTGCCATTGCTATTTTTG
shRNA3 Boundary 2 S R	AATTCAAAAATAGCAATGGCAGAACCTATTTCTCGAGAAATAGTTTCTGCCATTGCTA
shRNA1 Boundary 2 AS F	CCGGAGGAACTACATTGACTTATTTCTCGAGAAATAAGTCAATGTAGTTCTTTTTTG
ShRNA1 Boundary 2 AS R	AATTCAAAAAGGAACTACATTGACTTATTTCTCGAGAAATAAGTCAATGTAGTTCTCT
ShRNA2 Boundary 2 AS F	CCGGCGACCTCTGTAATGAAATAGCTCGAGCTATTTCAATTTACAGAGGTCGTTTTTG
ShRNA2 Boundary 2 AS R	AATTCAAAAACGACCTCTGTAATGAAATAGCTCGAGCTATTTCAATTTACAGAGGTCG
ShRNA3 Boundary 2 AS F	CCGGTGGATTGCGATTTCTGAAATCTCGAGATTTACAGAAATCGCAATCCATTTTTG
shRNA3 Boundary 2 AS R	AATTCAAAAATGGATTGCGATTTCTGAAATCTCGAGATTTACAGAAATCGCAATCCA
shRNA1 Boundary mycS F	CCGGCTAAGTCGAAGCGTAAATAAACTCGAGTTATTTACGCTTCGACTTAGTTTTTG
shRNA1 Boundary mycS R	AATTCAAAACTAAGTCGAAGCGTAAATAAACTCGAGTTATTTACGCTTCGACTTAG
ShRNA2 Boundary mycS F	CCGGGACCGCATTTCGAATAATAAACTCGAGTTTATTATTGAAATGCGGTCTTTTTG
ShRNA2 Boundary mycS R	AATTCAAAAAGACCGCATTTCGAATAATAAACTCGAGTTTATTATTGAAATGCGGTCT
ShRNA3 Boundary mycS F	CCGGGATGAGTCGAATGCCTAAATAACTCGAGTATTTAGGCATTTCGACTCATTTTTG
ShRNA3 Boundary mycS R	AATTCAAAAAGATGAGTCGAATGCCTAAATAACTCGAGTATTTAGGCATTTCGACTCATC
ShRNA4 Boundary mycS F	CCGGTCTCCGGGAGGGCATTAAATCTCGAGATTTAAATGCCCTCCCGGAGATTTTTG
ShRNA4 Boundary mycS R	AATTCAAAAATCTCCGGGAGGGCATTAAATCTCGAGATTTAAATGCCCTCCCGGAGA
ShRNAs5 Boundary mycS F	CCGGGCGAGGATATCTGGAAGAAATCTCGAGATTTCTCCAGATATCTTCGCTTTTTG
ShRNAs5 Boundary mycS R	AATTCAAAAAGCGAGGATATCTGGAAGAAATCTCGAGATTTCTCCAGATATCTTCGCG
shRNA1 Boundary mycAS F	CCGGGGAGAGCGGTTATGAATAAACTCGAGTTATTCATAACGCGCTCTCTTTTTG
shRNA1 Boundary mycAS R	AATTCAAAAAGGAGAGCGGTTATGAATAAACTCGAGTTATTCATAACGCGCTCTCC

### Primers used for RNA IP

Target	Primer sequence (5'-3')
B1 S in pCDNA 3 Box B F	AGACTGGCGGCCGCTAGGCCTCAAGGACTGCAA
B1 S in pCDNA 3 Box B R	AGACTGTCTAGACTCCTGGGAGCCAGAGAA
B1 AS in pCDNA 3 Box B F	AGACTGGAATTCAGTAGGTCGCATGCAACCACA
B1 AS in pCDNA 3 Box B R	AGACTGGCGGCCGCTCCTACATCAGCTGTGGCACA
B2 S in pCDNA 3 Box B F	AGACTGGAATTCGCCTCTGAGCCTGTAGAGACCAA
B2 S in pCDNA 3 Box B R	AGACTGGCGGCCGCTCTGGGTGAGGCAGTGAACAC
B2 AS in pCDNA 3 Box B F	AGACTGGAATTCATCCTCCAGGACCACAGCAGT
B2 AS in pCDNA 3 Box B R	AGACTGGCGGCCGCGCATAACCCTGGAGTGAGAGGTTG
E8 S in pCDNA 3 Box B F	AGACTGGAATTCATGCCATATGGTGGCAATG
E8 S in pCDNA 3 Box B R	AGACTGGCGGCCGCGCATCTGTTCTTGCCTCTTCCAC

### gRNAs used for deletions and CRISPRi

gRNA	Sequence
B1 DEL gRNA 1	TTAAATTGGTGCCTTGCGG
B1 DEL gRNA 2	GTAGTGAATATTACCTGGCT
B2 DEL gRNA 1	CAGACTTCCGTAGTCCCAT
B2 DEL gRNA 2	TTGGGTAGCATCTTCATCGG
MTAP gRNA 1	AGCAGTGCGGAGACCAGGGG
MTAP gRNA 2	CTCACTTGCCGCGCGAGGAG
INK4a gRNA 1	AGCCGTTTTACACGCAGGAG
INK4a gRNA 2	GACAGGACAGTATTTGAAGC
ARF gRNA 1	ATGCGCCCCGGACTTTTCGA
ARF gRNA 2	CTGCCCCCTTAAGTGCAGAC
INK4b gRNA 1	AAAGAATTCCGTTTTTCAGCT
INK4b gRNA 2	CTAGGAAGGAGAGAGTGCGC

### Surveyor Oligos

Target	Forward Primer (5'-3')	Reverse Primer (5'-3')
B1 DEL	TGGAGTGGTAGTAGTGTGGGAAG	GTACGAGGGTTCTTTTTGCTTG
B2 DEL	CACAACCCCATCTCTGTAAC	TGAAGTGAGGGGAGTAGACAAGG

#### 4C oligos for enhancer and Promoter viewpoints

View Point	Primer sequence (5'-3')
Enhancer F	AATGATACGGCGACCACCGAACACTCTTCCCTACACGACGCTCTCCGATCTGGTATTCTGACTAGAAGCTT
Enhancer R	CAAGCAGAAGACGGCATAACGATAGTGGTGCTACAGTACCAC
Promoter F	AATGATACGGCGACCACCGAACACTCTTCCCTACACGACGCTCTCCGATCTGGAGGAGCTAGGGCAAGCTT
Promoter R	CAAGCAGAAGACGGCATAACGACAGATGGATAAGTAGTAGCAAG