

Supplementary table S1. Output statistics of the sequencing reads for each sample

Sample	Raw reads	Clean reads	Q20(%)	Q30(%)	GC(%)
C-1	87264494	86855430	97.34	93.02	49.85
C-2	82165908	81768490	97.31	93.05	49.73
C-3	96315314	95884780	97.58	93.51	49.40
V-1	86021402	85619102	97.49	93.41	51.54
V-2	99261282	98804464	97.66	93.73	50.65
V-3	99586532	99153736	97.58	93.57	51.15
SV-1	101535398	101026400	97.60	93.70	51.89
SV-2	87956328	87506042	97.28	93.05	51.09
SV-3	94681750	94220542	97.29	93.10	51.92

Supplementary table S2. Transcription factor targeting analysis

C vs V			V vs SV		
NO.	Genbank	Symbol	NO.	Genbank	Symbol
1	ENSMUSG00000000782	Tcf7	1	ENSMUSG000000008193	Spib
2	ENSMUSG000000015619	Gata3	2	ENSMUSG000000008496	Pou2f2
3	ENSMUSG000000015709	Arnt2	3	ENSMUSG000000009741	Ubp1
4	ENSMUSG000000015846	Rxra	4	ENSMUSG000000018899	Irf1
5	ENSMUSG000000017861	Mybl2	5	ENSMUSG000000018983	E2f2
6	ENSMUSG000000018899	Irf1	6	ENSMUSG000000020167	Tcf3
7	ENSMUSG000000018983	E2f2	7	ENSMUSG000000020644	Id2
8	ENSMUSG000000019982	Myb	8	ENSMUSG000000022286	Grhl2
9	ENSMUSG000000022479	Vdr	9	ENSMUSG000000024431	Nr3c1
10	ENSMUSG000000027490	E2f1	10	ENSMUSG000000026104	Stat1
11	ENSMUSG000000028163	Nfkb1	11	ENSMUSG000000026628	Atf3
12	ENSMUSG000000029238	Clock	12	ENSMUSG000000029014	Dnaje2
13	ENSMUSG000000030256	Bhlhe41	13	ENSMUSG000000032481	Smarcc1
14	ENSMUSG000000032035	Ets1	14	ENSMUSG000000034041	Lyl1

15	ENSMUSG00000034957	Cebpa	15	ENSMUSG00000039191	Rbpj
16	ENSMUSG00000039153	Runx2	16	ENSMUSG00000040187	Arntl2
17	ENSMUSG00000040033	Stat2	17	ENSMUSG00000041540	Sox5
18	ENSMUSG00000042745	Id1	18	ENSMUSG00000048001	Hes5
19	ENSMUSG00000046532	Ar	19	ENSMUSG00000051910	Sox6
20	ENSMUSG00000048251	Bcl11b	20	ENSMUSG00000052271	Bhlha15
21	ENSMUSG00000052684	Jun	21	ENSMUSG00000052684	Jun
			22	ENSMUSG00000063889	Crem

Supplementary table S3. Primer sequence of mRNA

Gene	Primer sequence (5'-3')	Product length (bp)
<i>CXCL10</i>	F: TCTCTCCATCACTCCCCTTTA	151
	R: GCTTCGGCAGTTACTTTTGTC	
<i>CXCL9</i>	F: TTGTATGTGTGAGAGGTAGAAAGG	110
	R: AAAAAGTGGTAAGCAAGCAAGGAG	
<i>STAT1</i>	F: GCTGCCTATGATGTCTCGTTTG	123
	R: GCTTTTCCGTATGTTGTGCTG	
<i>IRF1</i>	F: GCTGCTGGTCTTGCTGGGTACT	120
	R: TGGGGCGATTCAAACCTTTTCTT	
<i>SAMHD1</i>	F: CTTGGCCGTGGTGTCTCTTGA	249
	R: CAGTGGGCTGGGATTTTGGTT	
<i>GBP7</i>	F: ATGCCAGAGGACCAGTTGGA	132
	R: CAGAGTCGCCAGTCGGTTT	
<i>SOCS1</i>	F: CGCTCCTTGGGGTCTGTTG	135
	R: TCGGTGCTACCATCCTACTCG	
<i>IFIT2</i>	F: CCATTGCGAACTACCGTCTG	393
	R: CCTCTAACTTCTTCCTATCCCCAC	
<i>SP140</i>	F: GCCATCACCAAGCCGTTTC	395
	R: GTGGGTTGCTGTGCTCCTG	
<i>FURIN</i>	F: AAGGACATCGGCAAACGG	319
	R: TGGTCAGCGTCCCATAGTTG	
<i>ZBP1</i>	F: AACCTCAATCAAGTCCTTTACC	231
	R: TCTTTGGCTGTCGTCATTCC	

<i>GBP4</i>	F: TCAAGGCAGGTCAGGGTCTAC R: CTGTTCCAACCAGCAAGATGA	125
<i>GBP2</i>	F: CCCTGAAGCAAAACAAATCG R: CCCCAAAATGGAGTCGCATA	184
<i>Serpina3g</i>	F: GCTGAGACAGGCACAGAGGC R: GCATAGCGGATCACCAAAACA	249
<i>JUN</i>	F: TTCAAAGCTCGGCATCGC R: GGGCATCGTCGTAGAAGGTC	300
<i>RPS2</i>	F: TCATTGATTTCTTCCTGGGTGC R: GCGACGAAAGCCTTGAACC	109
<i>TNF-<math>\alpha</math></i>	F: CTACTGAACTTCGGGGTGATCG R: CCTCCACTTGGTGGTTTGTGA	112
<i>ACOD1</i>	F: CTTCAGGCTCCCACCGACA R: GGCAGGGCTTCCGATAGAG	141
<i><math>\beta</math>-actin</i>	F: GCTCTGGCTCCTAGCACCAT R: GCCACCGATCCACACAGAGT	75

Supplementary table S4. Primer sequence of LncRNA

Gene	Primer sequence (5'-3')
<i>MSTRG.17554.2</i>	F: CTCCCTTGCTGAGGCTGTCC R: GGTCCCGTTAGAATGTTGCTTT
<i>MSTRG.4833.1</i>	F: TTTCCACTTCACTGGCTTTGC R: GCCTCACTATCTTGCCCGAC
<i>MSTRG.9203.1</i>	F: AGTGTATTCTTTGGAGCCTTTGC R: GCTGGAGACTGTGGGGATGT
<i>MSTRG.9900.7</i>	F: CCTAGCGAGAAACCTCAGAAATC R: AACAAAGACCAAGAACCAAGCAG
<i>MSTRG.12578.2</i>	F: TCCCTGAGCGCCGAGAA R: CCAACCACAGAACCTTTGACCT
<i>MSTRG.4832.1</i>	F: GGATGCCACTTCCACCCTC R: CTGCACCATTCTCCATTCCTACT

Supplementary table S5. Primer sequence of miRNA

Gene	Primer sequence (5'-3')
<i>miR-187-y</i>	GTCTTGTTGCAGCCGGA
<i>miR-372-y</i>	TGCTGCGACATTGAGCGT
<i>miR-125-z</i>	TCCCTGAGACCCTTAACCTGTG
<i>let-7-z</i>	GGCGCTCTGAGGTAGTAGATTGTATAGTT