

Table SI. Primer sequences.

Transcript	Direction	Primer sequence (5'-3')
lncRNA-ENO1-210	F	GGATGTCCGTCAGAACCCAT
	R	GCCATTAGCGCATCACAGTC
lncRNA-SNHG1-266	F	TGCCTCCCAGGGTGAATACA
	R	CCCTTTGAGCCAAGCAGGTT
lncRNA-SNHG15-203	F	TCTTGGCTGGCAGACCTGTA
	R	AGGATGGCGGTGGATGACTA
lncRNA-VMP1-217	F	GTTTCACCGTGTAGCCAGG
	R	GGCAGCAAAGGTCCATAAGA
lncRNA-H19-203	F	TCCGGACACAAAACCCCTCTA
	R	CTCCAGAGCCGATTCTCTGA
CDKN1A	F	GGATGTCCGTCAGAACCCAT
	R	GCCATTAGCGCATCACAGTC
H2AC7	F	CTCCCCAAGAAGACTGAGAG
	R	GCCTTTGTTAAGACTGCTTCCT
SQSTM1	F	GGTGAAACACGGACACTTCG
	R	AGAAGCTGATTCTGCCGTGG
H2AC20	F	GCGTTGTCTGTGTTTAACCTTG
	R	CACTCGCCCTACCGGGAA
H2AC18	F	GCTCCCTAAGAAGACGGAGA
	R	GCCTTTTGAGTTCACAGGTGC
GAPDH	F	GAAGGTGAAGGTCGGAGTCAA
	R	CTGGAAGATGGTGATGGGATTT

F, forward; R, reverse; lncRNA, long non-coding RNA; ENO1, enolase 1; SNHG, small nucleolar RNA host gene; VMP1, vacuole membrane protein 1; CDKN1A, cyclin dependent kinase inhibitor 1A; H2AC, H2A clustered histone; SQSTM1, sequestosome 1.

Table SII. siRNA sequences.

siRNA transcript	Sequence (5'-3')	
	Sense	Antisense
1	GGGACUACGCGGUGACGUCTT	GACGUCACCGCGUAGUCCCTT
2	GUCUUCGGCAGUCUAGUCATT	UGACUAGACUGCCGAAGACTT
3	CCCUCCUUGAGUCUCAUGUTT	ACAUGAGACUCAAGGAGGGTT
4	AAGCCUUGGCACCUUAAUUTT	AAUUAAGGUGCCAAGGCUUTT

siRNA, small interfering RNA.

Table SIII. Quantification of key long non-coding RNAs using transcripts per million in RNA-sequencing.

lncRNA	C1	C2	C3	T1	T2	T3
ENO1-210	47.36	47.42	25.10	13.50	7.19	6.13
SNHG1-266	84.62	105.19	68.31	5.88	9.80	5.06
SNHG15-203	19.45	20.50	17.63	6.94	6.57	4.87
VMP1-217	0.96	1.40	0.60	43.80	52.97	32.51

lncRNA, long non-coding RNA; ENO1, enolase 1; SNHG, small nucleolar RNA host gene; VMP1, vacuole membrane protein 1; C, control; T, treatment group.

Table SIV. mRNAs and their corresponding long non-coding RNAs.

mRNA	mRNA name	lncRNA	lncRNA name
ENSG00000161011	SQSTM1	ENST00000653192	ENST00000653192
ENSG00000161011	SQSTM1	MSTRG.15719.1	MSTRG.15719.1
ENSG00000124762	CDKN1A	MSTRG.15719.1	MSTRG.15719.1
ENSG00000124762	CDKN1A	MSTRG.22456.2	MSTRG.22456.2
ENSG00000124762	CDKN1A	ENST00000474223	SAT1-206
ENSG00000161011	SQSTM1	MSTRG.3858.2	MSTRG.3858.2
ENSG00000161011	SQSTM1	MSTRG.9155.30	MSTRG.9155.30
ENSG00000161011	SQSTM1	MSTRG.6195.3	MSTRG.6195.3
ENSG00000161011	SQSTM1	MSTRG.17360.1	MSTRG.17360.1
ENSG00000124762	CDKN1A	MSTRG.17360.1	MSTRG.17360.1
ENSG00000161011	SQSTM1	ENST00000571351	TNFRSF12A-203
ENSG00000124762	CDKN1A	ENST00000571351	TNFRSF12A-203
ENSG00000161011	SQSTM1	MSTRG.10767.1	MSTRG.10767.1
ENSG00000161011	SQSTM1	ENST00000617022	DDB2-212
ENSG00000124762	CDKN1A	ENST00000617022	DDB2-212
ENSG00000161011	SQSTM1	ENST00000614440	ENST00000614440
ENSG00000124762	CDKN1A	ENST00000614440	ENST00000614440
ENSG00000161011	SQSTM1	ENST00000487002	FDPS-212
ENSG00000161011	SQSTM1	MSTRG.22018.1	MSTRG.22018.1
ENSG00000161011	SQSTM1	ENST00000507004	HMGCS1-203
ENSG00000161011	SQSTM1	ENST00000711045	PURPL-299
ENSG00000124762	CDKN1A	ENST00000711045	PURPL-299
ENSG00000161011	SQSTM1	ENST00000698147	STAT1-237
ENSG00000124762	CDKN1A	ENST00000711025	PURPL-280
ENSG00000161011	SQSTM1	ENST00000379253	SAT1-202
ENSG00000124762	CDKN1A	ENST00000612309	DDB2-206
ENSG00000161011	SQSTM1	ENST00000592937	GADD45B-206
ENSG00000161011	SQSTM1	ENST00000668074	LINC00963-257
ENSG00000124762	CDKN1A	ENST00000668074	LINC00963-257
ENSG00000161011	SQSTM1	ENST00000574007	P4HB-218
ENSG00000124762	CDKN1A	MSTRG.10733.8	MSTRG.10733.8
ENSG00000161011	SQSTM1	MSTRG.6779.2	MSTRG.6779.2
ENSG00000161011	SQSTM1	MSTRG.12250.3	MSTRG.12250.3
ENSG00000124762	CDKN1A	MSTRG.12250.3	MSTRG.12250.3
ENSG00000124762	CDKN1A	ENST00000528854	FRMD8-206
ENSG00000161011	SQSTM1	ENST00000379251	SAT1-201
ENSG00000161011	SQSTM1	ENST00000607520	ENST00000607520
ENSG00000124762	CDKN1A	ENST00000607520	ENST00000607520
ENSG00000124762	CDKN1A	MSTRG.14597.10	MSTRG.14597.10
ENSG00000161011	SQSTM1	ENST00000466567	P4HB-204
ENSG00000161011	SQSTM1	MSTRG.10766.1	MSTRG.10766.1
ENSG00000161011	SQSTM1	ENST00000466342	SQSTM1-206
ENSG00000124762	CDKN1A	ENST00000466342	SQSTM1-206
ENSG00000161011	SQSTM1	ENST00000330048	SLC6A10P-202
ENSG00000124762	CDKN1A	ENST00000330048	SLC6A10P-202
ENSG00000161011	SQSTM1	MSTRG.20626.14	MSTRG.20626.14
ENSG00000124762	CDKN1A	MSTRG.20626.14	MSTRG.20626.14
ENSG00000161011	SQSTM1	ENST00000647580	ENST00000647580
ENSG00000124762	CDKN1A	ENST00000647580	ENST00000647580
ENSG00000124762	CDKN1A	MSTRG.22451.1	MSTRG.22451.1
ENSG00000161011	SQSTM1	ENST00000701343	ENST00000701343
ENSG00000161011	SQSTM1	ENST00000674361	XACT-203
ENSG00000124762	CDKN1A	ENST00000472045	IRF1-209
ENSG00000161011	SQSTM1	MSTRG.5005.1	MSTRG.5005.1
ENSG00000124762	CDKN1A	MSTRG.5005.1	MSTRG.5005.1

ENSG00000161011	SQSTM1	ENST00000494998	HMOX1-204
ENSG00000124762	CDKN1A	ENST00000494998	HMOX1-204
ENSG00000161011	SQSTM1	ENST00000482091	IDI1-204
ENSG00000161011	SQSTM1	ENST00000557927	AEN-203
ENSG00000124762	CDKN1A	ENST00000584176	GRIN2C-204
ENSG00000161011	SQSTM1	ENST00000673638	STAT1-213
ENSG00000124762	CDKN1A	ENST00000673638	STAT1-213
ENSG00000161011	SQSTM1	MSTRG.11847.2	MSTRG.11847.2
ENSG00000161011	SQSTM1	MSTRG.10769.5	MSTRG.10769.5
ENSG00000161011	SQSTM1	MSTRG.14956.1	MSTRG.14956.1
ENSG00000124762	CDKN1A	ENST00000533138	FTH1-209
ENSG00000161011	SQSTM1	ENST00000527832	EPS8L2-211
ENSG00000161011	SQSTM1	ENST00000315707	LINC00324-201
ENSG00000161011	SQSTM1	ENST00000584610	FASN-205
ENSG00000124762	CDKN1A	ENST00000586518	H3-3B-203
ENSG00000124762	CDKN1A	MSTRG.7358.2	MSTRG.7358.2
ENSG00000161011	SQSTM1	ENST00000630918	DBET-201
ENSG00000124762	CDKN1A	ENST00000630918	DBET-201
ENSG00000161011	SQSTM1	ENST00000688783	PURPL-238
ENSG00000124762	CDKN1A	ENST00000688783	PURPL-238
ENSG00000124762	CDKN1A	ENST00000597573	PDE4C-210
ENSG00000161011	SQSTM1	ENST00000531063	HSPA8-214
ENSG00000124762	CDKN1A	ENST00000474814	SNHG12-206
ENSG00000161011	SQSTM1	ENST00000701757	LINC-PINT-244
ENSG00000124762	CDKN1A	ENST00000504196	PLK2-206
ENSG00000161011	SQSTM1	ENST00000473880	LRWD1-205
ENSG00000124762	CDKN1A	MSTRG.12946.1	MSTRG.12946.1
ENSG00000124762	CDKN1A	ENST00000442114	LINC03040-203
ENSG00000124762	CDKN1A	ENST00000461507	FDPS-204
ENSG00000161011	SQSTM1	ENST00000560723	STARD5-205
ENSG00000124762	CDKN1A	ENST00000560723	STARD5-205
ENSG00000124762	CDKN1A	ENST00000649629	HSD17B7-210
ENSG00000161011	SQSTM1	MSTRG.5444.1	MSTRG.5444.1
ENSG00000124762	CDKN1A	MSTRG.5444.1	MSTRG.5444.1
ENSG00000161011	SQSTM1	ENST00000597360	PDE4C-209
ENSG00000124762	CDKN1A	ENST00000597360	PDE4C-209
ENSG00000161011	SQSTM1	MSTRG.15216.1	MSTRG.15216.1
ENSG00000124762	CDKN1A	MSTRG.23074.1	MSTRG.23074.1
ENSG00000124762	CDKN1A	ENST00000534918	SLC9A3-AS1-201
ENSG00000124762	CDKN1A	ENST00000481869	HES4-203
ENSG00000124762	CDKN1A	ENST00000647856	ENST00000647856
ENSG00000124762	CDKN1A	ENST00000593460	ARRDC2-203
ENSG00000161011	SQSTM1	ENST00000586372	FAM98C-204
ENSG00000161011	SQSTM1	MSTRG.18886.1	MSTRG.18886.1
ENSG00000161011	SQSTM1	ENST00000564068	COMMD4-209
ENSG00000161011	SQSTM1	MSTRG.12276.4	MSTRG.12276.4
ENSG00000161011	SQSTM1	ENST00000688818	EIF2AK3-DT-203
ENSG00000124762	CDKN1A	ENST00000688818	EIF2AK3-DT-203
ENSG00000124762	CDKN1A	ENST00000663097	SNHG7-206
ENSG00000124762	CDKN1A	ENST00000494436	MPV17-216
ENSG00000161011	SQSTM1	ENST00000608651	GAS6-DT-201
ENSG00000161011	SQSTM1	ENST00000567555	ALDOA-215
ENSG00000124762	CDKN1A	ENST00000691141	ENST00000691141
ENSG00000161011	SQSTM1	ENST00000533168	CTSF-209
ENSG00000124762	CDKN1A	ENST00000656092	SNHG5-230
ENSG00000124762	CDKN1A	ENST00000565928	TSPY26P-202
ENSG00000161011	SQSTM1	ENST00000466303	WBPI-206
ENSG00000124762	CDKN1A	ENST00000466303	WBPI-206

ENSG00000161011	SQSTM1	ENST00000681448	RIGI-210
ENSG00000161011	SQSTM1	MSTRG.7576.2	MSTRG.7576.2
ENSG00000124762	CDKN1A	MSTRG.7576.2	MSTRG.7576.2
ENSG00000124762	CDKN1A	MSTRG.9098.1	MSTRG.9098.1
ENSG00000124762	CDKN1A	ENST00000701106	ENST00000701106
ENSG00000161011	SQSTM1	MSTRG.20626.51	MSTRG.20626.51
ENSG00000124762	CDKN1A	ENST0000069682	TINF2-214
ENSG00000124762	CDKN1A	ENST00000586759	GADD45B-203
ENSG00000161011	SQSTM1	ENST00000545932	ISCU-211
ENSG00000124762	CDKN1A	ENST00000468307	INSIG1-205
ENSG00000161011	SQSTM1	ENST00000698624	CD79B-207
ENSG00000161011	SQSTM1	MSTRG.15477.1	MSTRG.15477.1
ENSG00000124762	CDKN1A	ENST00000471323	ALKBH6-209
ENSG00000124762	CDKN1A	MSTRG.19289.2	MSTRG.19289.2
ENSG00000124762	CDKN1A	ENST00000475367	SPTAN1-206
ENSG00000161011	SQSTM1	ENST00000469972	RALGDS-208
ENSG00000124762	CDKN1A	ENST00000687336	ENST00000687336
ENSG00000161011	SQSTM1	ENST00000561334	SNX22-207
ENSG00000161011	SQSTM1	ENST00000462639	SAT1-205
ENSG00000124762	CDKN1A	ENST00000462639	SAT1-205
ENSG00000124762	CDKN1A	ENST00000703011	CYTOR-239
ENSG00000161011	SQSTM1	ENST00000521122	PVT1-210
ENSG00000161011	SQSTM1	ENST00000556705	SRP54-AS1-204
ENSG00000124762	CDKN1A	ENST00000556705	SRP54-AS1-204
ENSG00000184260	H2AC20	ENST00000438482	ENST00000438482
ENSG00000184260	H2AC20	ENST00000507244	STX18-AS1-203
ENSG00000184260	H2AC20	ENST00000526890	CARS1-212
ENSG00000184260	H2AC20	ENST00000561110	DNAJC17-211
ENSG00000184260	H2AC20	ENST00000578968	SNHG15-203
ENSG00000184260	H2AC20	ENST00000609194	LRRC8D-DT-201
ENSG00000184260	H2AC20	ENST00000675486	ENST00000675486
ENSG00000184260	H2AC20	ENST00000681770	VLDLR-229
ENSG00000184260	H2AC20	ENST00000685242	MYLK-AS1-210
ENSG00000184260	H2AC20	ENST00000690193	LINC00662-279
ENSG00000184260	H2AC20	MSTRG.7008.104	MSTRG.7008.104
ENSG00000196866	H2AC7	ENST00000438482	ENST00000438482
ENSG00000196866	H2AC7	ENST00000525050	PPP6R3-207
ENSG00000196866	H2AC7	ENST00000526890	CARS1-212
ENSG00000196866	H2AC7	ENST00000551626	SOCS2-AS1-204
ENSG00000196866	H2AC7	ENST00000578968	SNHG15-203
ENSG00000196866	H2AC7	ENST00000675486	ENST00000675486
ENSG00000196866	H2AC7	ENST00000685242	MYLK-AS1-210
ENSG00000288825	H2AC18	ENST00000532581	GRAMD1B-207
ENSG00000288825	H2AC18	ENST00000643807	CMAHP-214
ENSG00000288825	H2AC18	ENST00000654183	SNHG17-217
ENSG00000288825	H2AC18	ENST00000657659	LINC00662-230
ENSG00000288825	H2AC18	ENST00000662585	CEACAM16-AS1-205
ENSG00000288825	H2AC18	ENST00000674368	SORD-209
ENSG00000288825	H2AC18	ENST00000687457	MIR137HG-208
ENSG00000288825	H2AC18	MSTRG.7008.104	MSTRG.7008.104

lncRNA, long non-coding RNA.