



**Figure S1** The bar chart shows the migration abilities of cells in each group. (A) The effect of low expression of AHCY on the migration ability of c666-1 cells. (B) The effect of AHCY high expression on the migration ability of NPC/HK1 cells. (C) The effect of Fer-1 on the migration ability of c666-1 + si-AHCY cells. (D) The effect of PY-60 on the migration ability of c666-1 + si-AHCY cells. \*\*,  $P < 0.01$ . AHCY, adenosylhomocysteinase; Fer-1, ferrostatin-1; NC, negative control; NPC, nasopharyngeal carcinoma.

**Table S1** Ferroptosis-related genes from FerroDb

Activate	Inhibit
RPL8	SLC7A11
IREB2	GPX4
ATP5MC3	AKR1C1
CS	AKR1C2
EMC2	AKR1C3
ACSF2	RB1
NOX1	HSPB1
CYBB	HSF1
NOX3	GCLC
NOX4	NFE2L2
NOX5	SQSTM1
DUOX1	NQO1
DUOX2	HMOX1
G6PD	FTH1
PGD	MUC1
VDAC2	SLC3A2
PIK3CA	MT1G
FLT3	SLC40A1
SCP2	CISD1
TP53	FANCD2
ACSL4	FTMT
LPCAT3	HSPA5
NRAS	ATF4
KRAS	TP53
HRAS	HELLS
TF	SCD
TFRC	FADS2
TFR2	SRC
SLC38A1	STAT3
SLC1A5	PML
GLS2	MTOR
GOT1	NFS1
CARS1	TP63
ALOX5	CDKN1A
KEAP1	MIR137

*Table S1 (continued)***Table S1** (*continued*)

Activate	Inhibit
HMOX1	ENPP2
ATG5	VDAC2
ATG7	FH
NCOA4	CISD2
ALOX12	MIR9-1
ALOX12B	MIR9-2
ALOX15	MIR9-3
ALOX15B	CBS
ALOXE3	ISCU
PHKG2	ACSL3
ACO1	OTUB1
G6PDX	CD44
ULK1	LINC00336
ATG3	BRD4
ATG4D	PRDX6
BECN1	MIR17
MAP1LC3A	SESN2
GABARAPL2	NF2
GABARAPL1	ARNTL
ATG16L1	HIF1A
WIPI1	JUN
WIPI2	CA9
SNX4	TMBIM4
ATG13	PLIN2
ULK2	MIR212
SAT1	Fer1HCH
EGFR	AIFM2
MAPK3	LAMP2
MAPK1	ZFP36
BID	PROM2
ZEB1	CHMP5
DPP4	CHMP6
CDKN2A	CAV1
PEBP1	GCH1
SOCS1	SIRT3

*Table S1 (continued)*

Table S1 (continued)

Activate	Inhibit
CDO1	DAZAP1
MYB	PIR
MAPK8	FTL
MAPK9	HCAR1
CHAC1	SLC16A1
MAPK14	RRM2
LINC00472	NR4A1
PRKAA2	PIK3CA
PRKAA1	RPTOR
ELAVL1	SREBF1
BAP1	SREBF2
ABCC1	FZD7
MIR6852	P4HB
ACVR1B	NT5DC2
TGFBR1	BCAT2
EPAS1	PLA2G6
HILPDA	MIR424
HIF1A	PARK7
IFNG	FXN
ANO6	SUV39H1
LPIN1	ATF2
HMGB1	ACOT1
TNFAIP3	ALDH3A2
TLR4	STK11
ATF3	FNDC5
ATM	CircIL4R
YY1AP1	CDH1
EGLN2	MIR214
MIOX	NEDD4L
TFAZZIN	TF
MTDH	BRD2
IDH1	BRD3
SIRT1	BRDT
FBXW7	DECR1
PANX1	GLRX5

Table S1 (continued)

Table S1 (continued)

Activate	Inhibit
DNAJB6	NCOA3
BACH1	NR5A2
LONP1	PANX2
CD82	RHEBP1
IL1B	TFAP2A
CTSB	CP
POR	ARF6
CYB5R1	GDF15
ELOVL5	ABHD12
FADS1	PPP1R13L
PTEN	TFAM
NR1D1	KDM3B
NR1D2	RNF113A
TBK1	AHCY
IL6	circ-TTBK2
USP7	MIR522
miR-182-5p	IDH2
miR-378a-3p	PPARA
ATF4	NOS2
AQP3	SIAH2
AQP5	RELA
AQP8	PRKAA2
LINC00618	VDR
MT1DP	NEDD4
PEX10	PRDX1
AGPAT3	AR
PEX12	MTF1
CHP1	COPZ1
GPAT4	NUPR1
BRPF1	USP35
OSBPL9	NEAT1
INTS2	PARP1
MMD	PARP2
CYP4F8	PARP3
MLLT1	PARP4

Table S1 (continued)

**Table S1** (continued)

Activate	Inhibit
TTPA	PARP6
GRIA3	PARP8
EPT1	PARP9
POM121L12	PARP10
LIG3	PARP11
AEBP2	PARP12
AGPS	PARP14
CDCA3	PARP15
PEX2	PARP16
PEX6	PDSS2
TIMM9	TXN
DCAF7	SENP1
LCE2C	OIP5-AS1
FAR1	MIR190A
PHF21A	FGF21
SMAD7	CREB1
LYRM1	CREB3
AMN	CREB5
PEX3	GOT1
MTCH1	TFRC
ACADSB	MIR130B
PVT1	BEX1
hsa_circ_0008367	ASAH2
SLC39A14	FABP4
MAP3K11	AKT1S1
GSK3B	MLST8
BRD7	SIRT1
SLC25A28	TYRO3
MFN2	SIRT6
SLC11A2	TMSB4X
ZFAS1	TMSB4Y
TSC1	KIF20A
TGFB1	ECH1
SNCA	circRHOT1
SIRT3	ETV4

**Table S1** (continued)

**Table S1** (continued)

Activate	Inhibit
CGAS	MEG8
STING1	VCP
HDDC3	circ_0007142
MIR761	RBMS1
MDM2	KDM4A
MDM4	MGST1
MIR214	circKIF4A
DLD	miR-7-5p
WWTR1	circ_0067934
PRKCA	MPC1
LG MN	CHMP1A
SMPD1	CAMKK2
MYCN	SOX2
IFNA1	SRSF9
IFNA2	PROK2
IFNA4	MIR4443
IFNA5	SIRT2
IFNA6	circRNA1615
IFNA7	MIR27A
IFNA8	MIR670
IFNA10	MEF2C
IFNA13	EZH2
IFNA14	PEDS1
IFNA16	SMPD1
IFNA17	ADAMTS13
IFNA21	CDC25A
SMG9	G6PD
PPARG	CircFNDC3B
MIR335	PPARD
SNX5	ENO3
PAQR3	LCN2
MICU1	MARCHF5
TOR2A	TRIB2
MIR375	DHODH
MAP3K14	MIR545

**Table S1** (continued)

**Table S1** (continued)

Activate	Inhibit
CircKDM4C	PDK4
MIR324	CircPVT1
QSOX1	MIR9-3HG
MIB2	ADIPOQ
CLTRN	circDTL
KLF2	mmu_circRNA_0000309
MIR5096	IL6
HOTAIR	PTPN18
H19	ABCC5
FOXO4	CISD3
YTHDC2	MS4A15
DDR2	FURIN
SLC39A7	circRHBG
TRIM46	GALNT14
ACSL1	KLHDC3
KDM5A	LINC01833
TRIM21	circGFRA1
DPEP1	MAPKAP1
CYGB	PRR5
IDO1	RICTOR
GSTZ1	GSTM1
GJA1	TERT
SLC7A11	circ0097009
PGRMC1	TMEM161B-DT
CIRBP	circEPST11
circPSEN1	MIR18A
USP11	RARRES2
YAP1	USP11
MIR135B	
TRIM26	
NDRG1	
MIR302A	
ASMTL-AS1	
FADS2	
PIEZO1	

**Table S1** (continued)**Table S1** (continued)

Activate	Inhibit
LIFR	
PTPN6	
MIR15A	
EGR1	
ADAM23	
ARHGEF26-AS1	
CPEB1	
COX4I2	
lncRNA AABR07017145.1	
TIMP1	
KDM6B	
METTL14	
MIB1	
KDM5C	
MEG3	
CCDC6	
CFL1	
MIR539	
KMT2D	