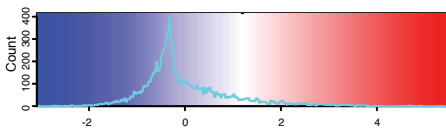
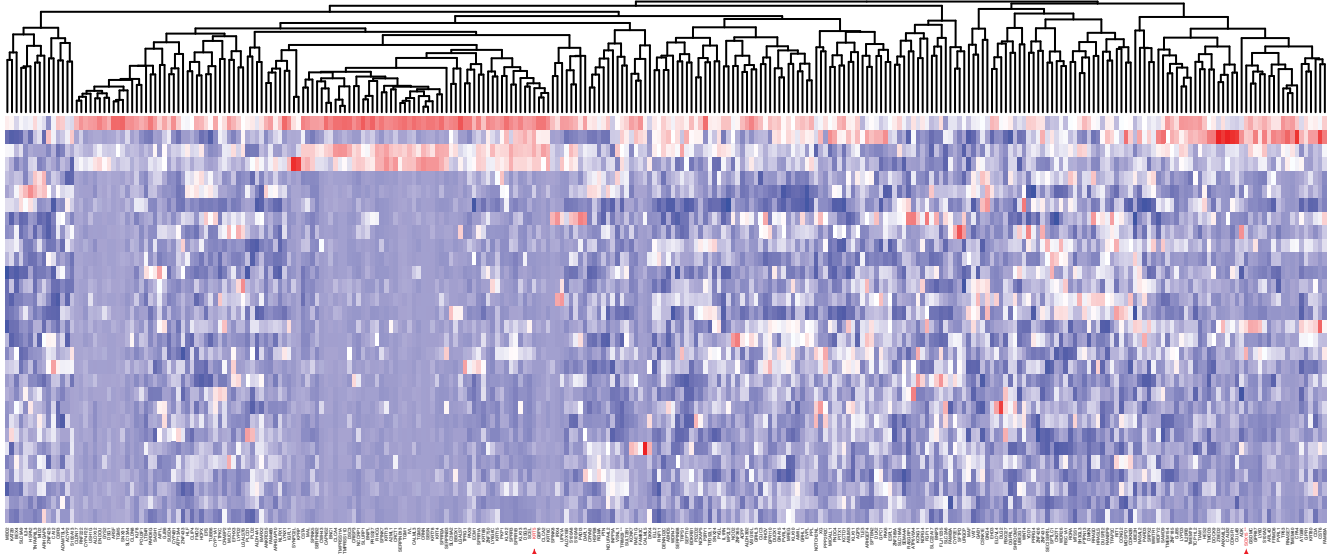
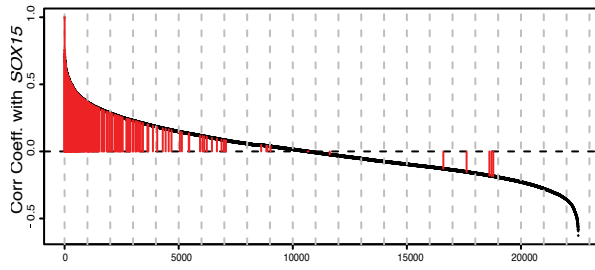


## **SUPPLEMENTAL MATERIALS**

**Supplemental Figure 1. Genes co-expressed with *SOX15* in The Cancer Genome Atlas (TCGA) dataset of gastric cancers.** (A) Correlations of all mRNAs with *SOX15* levels. The 317 genes co-expressed with *SOX15* in esophageal epithelium are marked with red lines. (B) Expression of *SOX15*-coexpressed genes in 30 cases of CIN<sup>+</sup> (chromosomal instability) adenocarcinomas from the G-E junction or gastric cardia.

**Supplemental Table 1. Top Gene Ontology (GO) terms for transcripts altered after *SOX15* depletion in CPA cells**

**Supplemental Table 2. Genes co-expressed with *SOX15* in a large collection of primary esophagus, BE and EAC specimens ( $r > 0.81$ )**



KRT5

SOX15

Term RNAseq Down			PValue
GO:0000278~mitotic cell cycle	3.26E-20	GO:0000079~regulation of cyclin-dependent protei	4.40E-06
GO:0051301~cell division	6.39E-20	GO:0016192~vesicle-mediated transport	6.89E-06
GO:0000280~nuclear division	1.39E-19	GO:0051726~regulation of cell cycle	8.53E-06
GO:0007067~mitosis	1.39E-19	GO:0009991~response to extracellular stimulus	3.09E-05
GO:0022403~cell cycle phase	1.48E-19	GO:0006091~generation of precursor metabolites ;	5.73E-05
GO:0000087~M phase of mitotic cell cycle	1.52E-19	GO:0045767~regulation of anti-apoptosis	7.05E-05
GO:0022402~cell cycle process	4.58E-19	GO:0031667~response to nutrient levels	1.71E-04
GO:0007049~cell cycle	2.49E-18	GO:0007584~response to nutrient	2.63E-04
GO:0000279~M phase	2.96E-18	GO:0008219~cell death	5.87E-04
GO:0048285~organelle fission	3.08E-18	GO:0010033~response to organic substance	6.29E-04
GO:0007059~chromosome segregation	1.93E-10	GO:0042981~regulation of apoptosis	6.32E-04
GO:0008104~protein localization	4.68E-10	GO:0055114~oxidation reduction	6.36E-04
GO:0045184~establishment of protein locali.	5.39E-10	GO:0042127~regulation of cell proliferation	6.77E-04
GO:0008654~phospholipid biosynthetic proc	6.48E-10	GO:0016265~death	6.77E-04
GO:0015031~protein transport	2.46E-09	GO:0043067~regulation of programmed cell death	7.56E-04

<b>GENE</b>	<b>Correlation with SOX15 expression</b>
SOX15	1.000
GRHL3	0.981
FAM46B	0.981
ZNF750	0.981
LYPD3	0.981
CAPNS2	0.979
IL20RB	0.978
BNIP1	0.978
ANXA8L2	0.975
GPR87	0.971
TMPRSS11D	0.971
LY6D	0.971
LASS3	0.971
CLCA2	0.971
PKP1	0.971
KRT5	0.971
GSDMC	0.970
TMEM40	0.970
FAM83C	0.970
TP63	0.970
DSC3	0.970
TGM5	0.964
TMPRSS11A	0.964
GJB6	0.964
KLK13	0.964
LYNX1	0.964
SPINK5	0.961
ENDOU	0.961
RNF222	0.961
PRSS27	0.961
KRT78	0.961
CRCT1	0.961
SCEL	0.961
A2ML1	0.961
SLURP1	0.961
c9orf169	0.961
CSTA	0.961
MAL	0.961
KRT6C	0.961
ARHGAP6	0.961
DSG3	0.961
TGM1	0.961
SBSN	0.961

SPRR1B	0.961
CLCA4	0.961
CALML3	0.961
RHCG	0.961
KRT4	0.961
SERPINB13	0.961
GBP6	0.961
NCCRP1	0.961
TMRSS11B	0.961
CNFN	0.961
TGM3	0.961
CRNN	0.961
HSPB8	0.961
SERPINB2	0.961
S100A2	0.961
LGALS7B	0.952
LGALS7	0.952
DUOX1	0.949
DUOXA1	0.949
CSNK1E	0.944
CLIC3	0.942
HOPX	0.940
SERPINB4	0.939
SERPINB3	0.939
ECM1	0.937
Trim29	0.937
SLC39A2	0.937
RAET1G	0.937
AQP3	0.937
TMEM154	0.937
GNA15	0.937
SULT2B1	0.937
ALDH3B2	0.937
EVPL	0.937
GRHL1	0.937
KAZ	0.937
PITX1	0.937
TMEM79	0.937
DENND2C	0.937
VSIG10L	0.937
ZNF185	0.937
PPL	0.937
GJB5	0.937
KRT15	0.937
c10orf99	0.931
EPHX3	0.928

AIF1L	0.928
CRABP2	0.928
PPP1R3C	0.917
ZNF365	0.916
CPA4	0.916
SPINK7	0.916
RNASE7	0.916
LOC643479	0.916
TIAM1	0.912
ARL4D	0.912
LASS4	0.912
IVL	0.912
P2RY1	0.912
DLK2	0.912
ANXA8	0.912
BBOX1	0.911
CYP4F22	0.911
SCNN18	0.911
MUC15	0.911
CWH43	0.911
CALML5	0.909
CST6	0.906
FAM83A	0.904
CDA	0.904
KRT80	0.904
LYPD2	0.901
FGF11	0.899
PPP2R2C	0.899
TLE3	0.881
DOCK9	0.881
PLD2	0.881
PYGL	0.881
BNIP3	0.881
TUBB6	0.881
NDUFA4L2	0.881
BDKRB1	0.881
NDRG4	0.881
CBR3	0.881
SLC22A17	0.881
SRPX2	0.881
FRMD6	0.881
MID2	0.881
EFS	0.881
PARD6G	0.881
c3orf54	0.881
RGMA	0.881

RRAGD	0.881
ANKRD35	0.881
TNFAIP8L3	0.881
ELOVL4	0.881
CRYAB	0.881
GPC1	0.881
ZNF385A	0.881
WDFY2	0.881
NOD2	0.881
PTPN13	0.881
TFAP2C	0.881
CDK5R1	0.881
VSNL1	0.881
MICALL1	0.872
PAK6	0.872
PVRL1	0.872
PVRL4	0.872
ITPKC	0.872
SPTBN2	0.872
SAMD9	0.872
AIM1L	0.872
PLCD1	0.872
NLRX1	0.872
MPZL2	0.872
PRRG4	0.872
PPP1R13L	0.872
URGCP	0.872
XG	0.863
HES2	0.863
c12orf54	0.863
IRX4	0.863
DST	0.863
BNC1	0.863
ARHGEF4	0.858
DMKN	0.855
KLK10	0.855
LTB4R	0.855
CYP2E1	0.853
KCTD1	0.852
ATP13A4	0.849
ATP6V0A4	0.849
RASGRP1	0.849
TRIM6	0.849
SHROOM2	0.849
CLIP4	0.849
KLK12	0.840

S100A8	0.840
S100A9	0.840
KRT6B	0.840
SPRR3	0.840
KRT13	0.840
SPRR1A	0.840
SPRR2A	0.840
NCKAP5	0.833
GPR1	0.833
CDKN2B	0.833
LOC653110	0.833
SFTPD	0.833
FBXO27	0.833
ZNF433	0.824
CA12	0.824
WNT4	0.824
MTSS1	0.824
WDR47	0.824
ELL2	0.824
RORA	0.824
SLC9A9	0.824
SEMA4A	0.824
MAF	0.824
BEX4	0.824
SERPINB8	0.824
ZDHHC21	0.824
ZNF425	0.824
SNX24	0.824
ALDH4A1	0.824
NOTCH2NL	0.824
DUSP22	0.824
MBD2	0.824
C4ORF3	0.824
CNOT1	0.824
CTTNBP2NL	0.824
CUL4B	0.824
ADK	0.824
MOSPD1	0.824
PDZD2	0.824
CAB39P	0.824
ZNF431	0.824
RASAL2	0.824
TMOD3	0.824
ARHGAP10	0.824
DAPP1	0.824
SLC2A6	0.824



ZNF426	0.824
RIT1	0.824
UBE2H	0.824
SPTLC1	0.824
KAT2B	0.824
SECISBP2L	0.824
KIAA1370	0.824
RNF11	0.824
WDR26	0.824
RANBP9	0.824
ABHD5	0.824
YOD1	0.824
SEPT10	0.824
UBE2G1	0.824
SASH1	0.824
GAB1	0.824
PARD3	0.824
RSC1A1	0.824
TPD52L1	0.824
IL34	0.824
HRASLS	0.824
ESPL1	0.824
TRPS1	0.824
KCNG1	0.824
HSPA2	0.824
ABLIM3	0.824
FNDC4	0.824
VAT1	0.824
FLJ11235	0.824
DKK4	0.824
WWTR1	0.824
ATG9B	0.824
PADI3	0.824
SYNPO2L	0.824
TCP11L2	0.824
CCNG2	0.824
GPR110	0.824
SPINK8	0.824
GYS2	0.824
INPP5A	0.824
ILI2A	0.824
UPK1A	0.824
KCNK7	0.824
CYP4B1	0.824
SYNGR1	0.824
OGFRL1	0.824

SLC16A6	0.824
HLF	0.824
DLG2	0.824
CYP11A1	0.824
PTN	0.824
BARX2	0.824
CLDN8	0.824
RHOV	0.824
C1ORF161	0.824
SNX31	0.824
ACPP	0.824
S100A13	0.824
USH1G	0.824
GNG4	0.824
ADAMTSL4	0.824
SLC13A4	0.824
POU3F1	0.824
IL1RN	0.824
IL1F6	0.824
KLK11	0.824
MREG	0.824
ZBED2	0.824
CALB2	0.824
ALOX12	0.824
CRISP3	0.824
EHD3	0.824
ACYP2	0.824
C2ORF54	0.824
KLF8	0.824
KREMN1	0.824
TPRG1	0.824
PAX9	0.824
SUSD4	0.824
DAPL1	0.824
ARSF	0.816
ALOX15B	0.816
C18ORF26	0.816
FMO2	0.816
FAM63A	0.806
SH3GL3	0.806
LY6G6C	0.806
DSG1	0.806
CLDN17	0.806
KPRP	0.806
IGFL1	0.806