

**Supplementary Table 2.** Genes That Downregulated in Both Diseases

Gene symbol	logFC (colorectal cancer)	logFC (Polyp)
CDH3	-8.8	-6.0
CCL20	-6.7	-7.1
CEMIP	-6.1	-4.5
MSLN	-5.5	-3.7
BMP4	-5.4	-5.0
DPEP1	-4.4	-1.9
TACSTD2	-4.3	-4.6
CLIC3	-4.3	-1.2
MMP1	-4.2	-5.5
COL11A1	-4.0	-3.8
TM4SF20	-3.5	-1.4
PITX2	-3.2	-4.4
TRIB3	-3.1	-1.6
ETV4	-3.0	-3.1
RNF43	-3.0	-2.8
S100P	-2.9	-3.6
LCN2	-2.9	-4.8
NMU	-2.9	-2.8
ASCL2	-2.8	-2.7
TNFSF11	-2.8	-2.3
REG3A	-2.8	-3.0
GDF15	-2.8	-1.9
ERCC6L	-2.7	-2.7
FSBP	-2.6	-2.2
CXCL1	-2.6	-3.4
CST2	-2.6	-1.8
PRR7	-2.5	-1.8
NETO2	-2.5	-2.1
CGREF1	-2.5	-1.0
MMP7	-2.4	-2.5
DEFA5	-2.4	-4.3
KCNQ1	-2.4	-4.3
INHBA	-2.4	-2.1
NQO1	-2.4	-2.5
CXCL3	-2.3	-3.5
CKS2	-2.3	-2.8
ESM1	-2.3	-2.5
UBD	-2.3	-2.4
SOX9	-2.3	-3.5
LYZ	-2.2	-3.0
IL20RA	-2.2	-2.3
CADPS	-2.2	-2.4

TDGF1P3	-2.1	-3.1
COL1A1	-2.1	-3.5
POU5F1P4	-2.1	-1.7
AREG	-2.1	-1.1
FERMT1	-2.1	-2.9
PRR5	-2.0	-2.8
DUSP4	-2.0	-2.9
CBX8	-2.0	-1.8
NFE2L3	-2.0	-2.2
PTK7	-2.0	-1.7
KIF20A	-2.0	-3.3
PUS7	-1.9	-1.6
CBLC	-1.9	-2.7
FABP6	-1.9	-2.0
PDZK1IP1	-1.8	-3.3
IL2	-1.8	-2.0
HIST1H2BJ	-1.8	-1.4
LRFN4	-1.8	-3.3
SOX4	-1.8	-3.1
IL27RA	-1.8	-3.1
COL7A1	-1.8	-1.9
EZH2	-1.7	-2.5
CEP55	-1.7	-3.2
LIMK1	-1.7	-2.3
RRP9	-1.7	-1.9
EFNA4	-1.7	-2.2
RHBDF2	-1.7	-1.2
MATN3	-1.7	-1.5
MELK	-1.7	-2.6
GPX2	-1.7	-2.1
RRM2	-1.6	-1.9
SULT1C2	-1.6	-2.9
STK38	-1.6	-1.0
NOX1	-1.6	-2.0
PTTG3P	-1.6	-2.2
SNORA5B	-1.6	-1.2
ADGRG1	-1.6	-2.6
MARCKSL1	-1.6	-2.3
ANOS1	-1.6	-1.4
FCF1	-1.6	-1.8
RFWD3	-1.6	-1.2
CXADR	-1.6	-1.7
PATJ	-1.6	-2.0
APOBEC1	-1.6	-3.2

HMGA1	-1.5	-2.6
NCAPG	-1.5	-2.2
CDC20	-1.5	-2.3
MTHFD2	-1.5	-2.1
BACE2	-1.5	-2.1
FANCF	-1.5	-1.3
ECT2	-1.5	-2.3
TPX2	-1.5	-1.7
GPR35	-1.5	-1.8
TOP2A	-1.5	-2.6
MDK	-1.5	-2.8
ATP9A	-1.5	-1.5
TRIM31	-1.5	-1.3
CDC25B	-1.5	-1.3
KRT36	-1.5	-1.7
CELSR1	-1.5	-1.4
CSNK1E	-1.5	-1.7
PTK6	-1.4	-1.7
BUB1B	-1.4	-2.8
LRP8	-1.4	-1.2
NSUN5P1	-1.4	-1.1
TACC3	-1.4	-2.1
GTF2IRD1	-1.4	-1.5
LAMC2	-1.4	-2.0
ELMO3	-1.4	-1.5
HILPDA	-1.4	-1.1
S100A11	-1.4	-1.8
MSX2	-1.4	-1.0
MIF	-1.4	-1.0
EPHB2	-1.4	-1.9
RPIA	-1.4	-1.8
RALA	-1.4	-1.3
PDE4A	-1.4	-1.4
PARPBP	-1.4	-2.3
IFITM1	-1.4	-1.2
DDC	-1.4	-1.2
LEF1	-1.4	-1.1
MNX1	-1.4	-2.9
KRT18	-1.4	-1.5
CAPG	-1.4	-1.9
CENPE	-1.3	-2.3
TRIM29	-1.3	-1.8
CAMSAP1	-1.3	-1.2
FUT4	-1.3	-1.0

PERP	-1.3	-1.2
GALNT6	-1.3	-2.0
ITGA2	-1.3	-1.6
E2F5	-1.3	-1.1
ADAM12	-1.3	-1.1
MMP11	-1.3	-1.5
PLCB3	-1.3	-1.0
NDC80	-1.3	-3.0
MICB	-1.3	-1.9
ENC1	-1.3	-1.9
MKI67	-1.3	-1.2
TRABD	-1.3	-1.1
TMEM2	-1.3	-1.2
IGF2BP2	-1.3	-1.6
DBF4	-1.3	-1.7
MMP10	-1.3	-1.4
CDK1	-1.3	-1.9
GINS1	-1.3	-1.9
EPHB3	-1.3	-2.4
GRHL2	-1.3	-2.1
NSUN5P2	-1.3	-1.0
SFRP4	-1.3	-1.5
TTK	-1.3	-2.5
ZNF217	-1.2	-1.5
SHCBP1	-1.2	-1.2
HIST1H2AE	-1.2	-1.3
TMC5	-1.2	-3.1
PAFAH1B3	-1.2	-1.6
SNORD19B	-1.2	-1.3
ENGASE	-1.2	-1.1
CENPF	-1.2	-1.7
USH1C	-1.2	-1.8
PSMG1	-1.2	-1.0
HN1L	-1.2	-1.0
BOLA2B	-1.2	-1.1
PIK3C2B	-1.2	-1.6
VIL1	-1.2	-1.3
WDR43	-1.2	-1.1
PPM1H	-1.2	-1.4
GGCT	-1.2	-1.5
GSTP1	-1.2	-1.8
PRR15L	-1.2	-2.4
CCNE1	-1.2	-1.5
INTS7	-1.2	-1.4

MEST	-1.2	-1.4
SIM2	-1.2	-1.1
NME1	-1.2	-1.2
PKP3	-1.2	-2.2
RECQL4	-1.2	-1.9
FXYD5	-1.2	-1.3
MYO10	-1.2	-1.6
LRP4	-1.2	-1.1
PAQR4	-1.2	-1.4
TGIF1	-1.2	-1.6
UBE2C	-1.2	-1.4
BIK	-1.2	-3.4
MAPK13	-1.2	-1.5
LRRC37A2	-1.2	-1.3
YEATS4	-1.2	-1.4
GARS	-1.1	-1.2
EVPL	-1.1	-1.3
POF1B	-1.1	-3.1
MAD2L1	-1.1	-1.9
KIF14	-1.1	-1.7
GSPT1	-1.1	-1.0
PKM	-1.1	-1.6
NDUFC2	-1.1	-1.7
AMMECR1	-1.1	-1.6
AP1G2	-1.1	-1.8
ZBTB1	-1.1	-1.0
SPAG1	-1.1	-1.5
TRIM24	-1.1	-1.0
KLF5	-1.1	-2.9
CDH1	-1.1	-1.5
IFT140	-1.1	-1.8
TCF7	-1.1	-1.3
NUAK2	-1.1	-1.5
RPA3	-1.1	-1.1
OSBPL3	-1.1	-1.4
SEMA3F	-1.1	-1.1
ARID4B	-1.1	-1.1
CD24	-1.1	-2.2
RAB25	-1.1	-2.5
RYR1	-1.1	-1.5
PITX1	-1.1	-1.3
AP1S1	-1.1	-1.1
CARD10	-1.1	-1.5
TNFRSF10B	-1.1	-1.0

RFC3	-1.1	-1.1
DPY19L1P1	-1.1	-1.2
XYLT2	-1.1	-1.1
SNHG17	-1.1	-1.1
EZR	-1.1	-1.5
GTF3A	-1.1	-1.0
PUS1	-1.1	-1.5
CENPN	-1.1	-1.4
CHEK1	-1.1	-1.1
LGR5	-1.1	-1.7
STX3	-1.1	-1.0
ZNF184	-1.1	-1.3
TMEM132A	-1.1	-1.0
HS3ST1	-1.0	-2.4
GEMIN4	-1.0	-1.0
CAMKMT	-1.0	-1.0
CELSR3	-1.0	-1.0
BZW2	-1.0	-1.7
ACSL5	-1.0	-1.2
NUP155	-1.0	-1.1
POU2F3	-1.0	-1.2
MYO6	-1.0	-1.6
UBE2S	-1.0	-1.6
GATA6	-1.0	-1.4
ITGA6	-1.0	-1.6
MRE11A	-1.0	-1.0
FAT1	-1.0	-1.0
RBL1	-1.0	-1.4
KIF18B	-1.0	-1.6
NUP62CL	-1.0	-2.1
CKAP2	-1.0	-1.7
HAUS6	-1.0	-1.2
MYCL	-1.0	-1.5
LAMP3	-1.0	-1.6
SH2D3A	-1.0	-1.5
NBR2	-1.0	-1.2
CBX3	-1.0	-1.1
ADAP1	-1.0	-1.0
PPAT	-1.0	-1.0
TGS1	-1.0	-1.0
PD_CD2	-1.0	-1.0
PTTG1	-1.0	-1.5
LRRC8E	-1.0	-1.1
AURKA	-1.0	-1.3

EPOR	-1.0	-1.5
TBC1D2	-1.0	-1.9
PDZD8	-1.0	-1.2
LTBP2	-1.0	-1.3
KPNA2	-1.0	-1.3

**Supplementary Table 3.** Genes That Upregulated in Both Diseases

Gene symbol	logFC (colorectal cancer)	logFC (polyp)
PCDH9	1.0	2.1
CAV2	1.0	2.0
ASPA	1.0	2.1
INPP5A	1.0	1.1
RGL1	1.0	1.1
SMC1A	1.0	1.1
GAS2L1	1.0	1.1
EPHX1	1.0	2.3
KAT2B	1.0	1.7
VAMP1	1.0	1.9
KCNAB1	1.0	1.0
ALDH3A2	1.0	1.0
CLIC2	1.0	1.1
MARCO	1.0	2.2
MAFB	1.0	1.3
RAI2	1.0	1.3
TTC28	1.0	1.3
FUT5	1.0	1.5
MSRI	1.0	1.2
PCYOX1	1.0	1.7
PTP4A1	1.0	1.1
MXI1	1.0	1.1
DUSP3	1.1	1.9
EIF5	1.1	1.5
TIAM1	1.1	1.2
PJA2	1.1	1.2
MST1L	1.1	1.3
DST	1.1	1.1
MTMR9	1.1	1.3
WASF1	1.1	1.8
MAF	1.1	1.4
KPNA6	1.1	1.1
PRNP	1.1	1.6
PIK3R1	1.1	1.3
FCGR2B	1.1	1.8
ABHD8	1.1	1.1
ZNF271P	1.1	1.0
UGP2	1.1	1.1
SCPEP1	1.1	1.3
KCNK3	1.2	1.1
AHNAK	1.2	1.2
CFLAR	1.2	1.1