

Supplementary Table 2. The top 100 up-regulated and down-regulated genes by E2 treatment along with their log2 fold change. $p \leq 0.05$.

Up-regulated genes	log2 fold change	Up-regulated genes	log2 fold change
YDJC	4.49	DUSP12	0.95
ITGB1BP2	4.26	CEP44	0.95
GDPD3	4.22	SS18L2	0.93
HIST1H2BE	3.65	CXCL2	0.93
FGF7	3.32	ST7L	0.93
IL11	3.3	TOR2A	0.93
OTOP1	3.13	TMEM171	0.92
PABPN1	1.98	SEPSECS	0.92
SAG	1.97	MIR3064	0.9
ZNF799	1.87	SSPN	0.89
MSRB3	1.65	RPPH1	0.89
FAM151B	1.62	F8	0.89
ZNF34	1.54	DIMT1	0.89
ELAC1	1.51	MB21D1	0.88
C11orf74	1.51	ALG5	0.88
P2RX3	1.51	PEX3	0.88
FGL1	1.5	HACL1	0.88
ZNF480	1.46	TXNRD2	0.88
FAM133CP	1.44	C8orf76	0.87
NEK4	1.41	TIMM10	0.87
ZKSCAN3	1.36	ZNF880	0.87
CFP	1.33	MTRNR2L6	0.86
PSTK	1.33	SNX16	0.86
MRPL57	1.26	MIR5047	0.86
TOMM5	1.25	VHL	0.84
ATF3	1.24	CRBN	0.84
TPPP3	1.21	C5orf22	0.84
ZNF564	1.15	MT2A	0.84
ZNF891	1.14	N6AMT2	0.83
SYT12	1.1	DHRS7	0.83
MTRNR2L2	1.1	DYNLL1	0.83
CCT6P3	1.1	UQCRC2	0.83
FBXL2	1.09	MRPL53	0.82
PIGH	1.08	PTDSS2	0.82
MIR100HG	1.07	MT1M	0.81
ZSCAN26	1.06	KBTD8	0.81
SAC3D1	1.04	ARL1	0.81
MTRNR2L10	1.03	EIF4A2	0.81
CXCL1	1.03	ZNF625	0.81
TAF1B	1.02	CDK5RAP1	0.81
ZNF25	1.02	MED21	0.81
MT1B	1.01	GS1-124K5.11	0.8
MTRNR2L7	1.01	CLDN12	0.8
ZNF670	1.01	FASTKD2	0.8
MALAT1	0.99	MRPL15	0.8
MRTO4	0.99	ZNF878	0.8
NUDT19	0.98	NKAP	0.8
TMEM216	0.98	IFRD1	0.79
CDKN2AIPNL	0.97	PHOSPHO2	0.79
GNPNAT1	0.95	VKORC1	0.78

Down-regulated genes	log2_fold_change	Down-regulated genes	log2_fold_change
SNX29P2	-4.13	DAPK1	-0.67
RASD1	-3.54	TECR	-0.67
INPP5D	-3.18	ZNF628	-0.66
THBS2	-2.9	THAP1	-0.66
TNS1	-1.89	SHOX2	-0.66
IFIT3	-1.89	DNMBP	-0.66
LEF1	-1.31	RGS12	-0.65
MYB	-1.29	ZNF428	-0.65
ATP1A3	-1.16	MOV10	-0.65
ADD2	-1.12	PRSS22	-0.65
FOXC2	-1.09	ZFAT	-0.64
DCLK1	-1.08	PBX1	-0.64
CDC42EP2	-1.08	NR2F1	-0.64
SLCO4A1	-1.07	FBLN2	-0.63
FAM83D	-1.06	THBS1	-0.63
TNIK	-1.06	LAD1	-0.62
ITGA8	-1.05	TONSL	-0.61
AQP1	-1.04	IDH2	-0.61
ZNF341	-0.97	COL16A1	-0.61
ZFPM1	-0.92	LPAR2	-0.6
IRAK2	-0.91	CCNE1	-0.6
TYRO3P	-0.91	PML	-0.6
PANK1	-0.89	KSR1	-0.6
SEMA3B	-0.89	DBN1	-0.6
ARHGEF19	-0.88	PFKFB3	-0.6
HERC3	-0.84	TNS4	-0.6
PRND	-0.82	TSPAN9	-0.6
NRDE2	-0.81	FDPS	-0.6
CEP128	-0.81	PTOV1	-0.59
IGSF9	-0.8	MON1B	-0.58
DOCK6	-0.77	CDK20	-0.58
RNF135	-0.76	FDFT1	-0.58
ABCB8	-0.76	TMEM201	-0.58
PKMYT1	-0.75	NR1D1	-0.58
SLC4A8	-0.74	LOC494127	-0.58
C6orf132	-0.74	TNRC18	-0.57
MARCKSL1	-0.73	MFSD10	-0.57
CYP1B1	-0.73	FERMT1	-0.57
MICAL2	-0.73	IGFBP4	-0.57
AFAP1L2	-0.73	LSS	-0.56
CHTF18	-0.71	SMG9	-0.56
HOXA7	-0.71	PLEKHO1	-0.56
PEAR1	-0.69	PCYT2	-0.56
UHRF1	-0.68	KLF4	-0.56
PTP4A3	-0.68	MYBL2	-0.56
MEX3A	-0.68	HDAC6	-0.55
BCL9	-0.68	FIZ1	-0.55
SLC9A3R2	-0.68	WWP2	-0.55
EYA2	-0.68	SLC12A7	-0.55
VASH2	-0.68	RGL2	-0.55