

Supplementary Table SII Genes regulated in eSFs and eECs by SP.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
MT1M	B4GALT1	ADRA2C
MT1G	SMOX	MEX3B
SLC30A1	NPTX1	ID3
MT1E	FZD7	NR4A2
SLC30A2	CHMP1B	MT1E
MT1F	KRT19	FAM46B
RIMKLB	ARL4C	SEPT5
MIR210HG	IL33	MT1L
MT1L	CITED2	NR4A1
ADRA2C	CLMP	SLC30A1
RPS10P7	IFIT3	RGAG4
CLCF1	MICALL1	CXCL8
FAM167A	RHOB	TNFRSF18
MT1X	EPAS1	ADAMTS4
RMI2	TBL1X	FAM167A
NR4A2	HS1BP3	PTGS2
CD55	BHLHE41	IL11
MT2A	CHSY1	PFKFB4
IL1RN	IGF1R	MT1X
RGAG4	CDCA7	MT2A
CXCL2	SOCS3	CLCF1
BEX2	GALNT2	RMI2
FAM229A	TM4SF1	
LOC100130705	PAQR4	
PCAT6	BET1L	
MIR6753	IL11	
LRP8	CRISPLD2	
EPB41L4A-AS1	TNFRSF11B	
FAM46B	ARHGAP21	
TNFRSF18	LBH	
GLYCTK	ETS1	
NR4A1	ABL1	
CCL20	FAM167A	
PAQR6	IFIT2	
SLC45A4	DIRAS3	
SLC7A2	BCL6	
IGFBP3	LASP1	
GAS1	WIPI1	
ANKRD37	TMEM173	
ADAMTS4	FHL2	
FAM27E3	FAM46A	
CCDC8	TP53	
ID3	LXN	
LINC00672	ASF1B	
CXCL3	PACSI	
DUSP2	TWIST2	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
HIST1H2BC	RGS4	
FERMT1	C1orf198	
STEAP4	UBE2O	
ZNF385A	IGFBP4	
ENTPD3	TERF2IP	
IL11	RASSF8	
CXCL8	EDNRB	
LINC01502	FNDC3A	
LOC102723854	HAUS5	
PFKFB4	GJC1	
PTGS2	TCEB3	
DUOXA2	SEC24A	
LOC642361	ATP10D	
SEPT5	FILIP1L	
MT1H	HSPB1	
ZNF43	KCNJ8	
MT1A	ALDH18A1	
MEX3B	CIQTNF5	
FOSL1	MPHOSPH8	
DNASE1L2	SEC16A	
IL23A	GNG11	
SNORA92	CSF1	
C17orf97	UNC5B	
	IRS1	
	NR2F1	
	THBS1	
	GPRC5A	
	DPH2	
	SYNC	
	SERTAD4	
	WNK4	
	ADGRA3	
	CREB3L2	
	CSDC2	
	IMPAD1	
	METRNL	
	CDC42EP3	
	ADM2	
	CLN6	
	SLC38A1	
	LIMS2	
	KNDC1	
	MUM1L1	
	GPRIN1	
	HIF1A	
	CAMKK1	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	SNAIL	
	COL8A1	
	AMMECR1L	
	MYPOP	
	ILIR1	
	CD248	
	FZD4	
	SPEG	
	ADRA1D	
	SSTR1	
	AKIP1	
	TNS2	
	YWHAH	
	SH2D5	
	C15orf52	
	POLR3D	
	STAMBPL1	
	TCF19	
	VEGFA	
	SFXN3	
	GREM1	
	C17orf51	
	SECISBP2L	
	PMEPA1	
	OPTN	
	ABCF3	
	TSPYL2	
	LOC642852	
	AHR	
	KRT18	
	LRPAP1	
	ANXA11	
	ACBD3	
	C8orf4	
	TMEM246	
	TMEM200B	
	SERP1	
	DDAH2	
	LZTS2	
	TNS3	
	POLR3E	
	MOV10	
	SPTY2D1	
	USP53	
	CXXC5	
	PTGSI	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	DUSP1	
	HTR2B	
	GRB2	
	POLE	
	HDAC7	
	CYBRD1	
	SWAP70	
	CEBPB	
	LMO7	
	MYBBP1A	
	UFM1	
	PPP1R3C	
	TMEM106C	
	ATP2B4	
	USP46	
	PDLIM1	
	SUCO	
	PDGFB	
	SYPL2	
	FRMD6-AS1	
	CLDN11	
	YIPF6	
	OXTR	
	KLF11	
	CSPG4	
	GOLGA2	
	POFUT2	
	AVP11	
	SAR1A	
	ITPR1P	
	PTGES	
	FKBP14	
	C14orf80	
	NOL6	
	MAP3K6	
	AMDHD2	
	POLD1	
	TFAP2C	
	TBX3	
	PFKFB3	
	FBLIM1	
	AMPD2	
	ADRA2C	
	KCNG1	
	SGK1	
	TNFRSF10D	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	EDEM3	
	TMFI	
	SCARF2	
	FGF2	
	FAM208B	
	MT2A	
	ARID5B	
	CLCF1	
	CPT1A	
	F3	
	BOK	
	TOP1	
	UBE2S	
	BYSL	
	ARID5A	
	MIR22HG	
	DNAJB2	
	GCNT4	
	UNG	
	KLF2	
	GLII	
	ZBTB38	
	CDC42EP1	
	MRVI1	
	LOC730101	
	SMARCB1	
	SNX18	
	PACSIN3	
	SCG2	
	TGFB111	
	PATZ1	
	EPS8L2	
	TFPI2	
	ST3GAL1	
	NEFM	
	CAV1	
	RPP25	
	NEFL	
	TMEM60	
	TRIM21	
	PRRC1	
	FRMD6	
	CEMP1	
	ERBB2	
	ARFGAP1	
	UCP2	

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Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	ADAMTSS	
	TMEM39A	
	IRF1	
	ZC3H12A	
	RASSF2	
	RASL11B	
	ASB1	
	MAGEH1	
	NAP1L5	
	ENTPD7	
	SAMD1	
	HABP4	
	EXTL1	
	MCM7	
	PDLIM7	
	YRDC	
	PCBP4	
	GPR176	
	MAP1B	
	CARD16	
	PLCD3	
	ULBP1	
	ACVRL1	
	FOXO1	
	YARS	
	SLC35A2	
	L3HYPDH	
	UBTF	
	TMEM133	
	RENBP	
	SERTAD4-AS1	
	SLC1A4	
	UTP14C	
	FAM105A	
	CD59	
	MICAL1	
	SAT1	
	ABHD4	
	P2RX4	
	CCDC74A	
	MCM3	
	PPP2R1B	
	SEPT5-GPIBB	
	SIN3B	
	ABRACL	
	FBXL5	

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Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	NOV	
	WEE1	
	KRT81	
	PENK	
	STMN2	
	ACO1	
	MYOF	
	PIP5K1C	
	DNM3OS	
	PHF10	
	SERPINE2	
	CMTM3	
	LOXL4	
	PCDH18	
	PLPP2	
	STAT3	
	SLC29A1	
	JAG1	
	GOLGA3	
	PNMA6A	
	TBL2	
	SLC35E1	
	MYO10	
	FGF7	
	RTN2	
	PALLD	
	LRIG1	
	FABP4	
	NR1D1	
	ALDH3A2	
	FLCN	
	AHNAK	
	MYBL2	
	JKAMP	
	RWDD2A	
	SLC22A23	
	VCL	
	PMM2	
	DDR1	
	CARS	
	SFRP1	
	AFAP1	
	AP3M2	
	HDAC5	
	E2F7	
	TRPV2	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	INGI	
	SLC26A6	
	USP38	
	CUL4B	
	OLFML2B	
	CHST2	
	LOC101928841	
	TRIM6	
	MEX3B	
	UACA	
	CTSL	
	QPCTL	
	PLEKHH3	
	LIG1	
	ZNF587	
	LCNL1	
	ELL2	
	MTMR11	
	PTPRN	
	LONRF2	
	SYNPO2	
	TIMELESS	
	GNL3	
	CCHCR1	
	NR4A2	
	TONSL	
	GADD45A	
	CAV2	
	NAT9	
	AHNAK2	
	MCM2	
	GBP3	
	PFKFB4	
	IL4R	
	TSKU	
	GFPT1	
	CDC6	
	PLIN2	
	DTX3L	
	KRTAP1-5	
	BBC3	
	PDLIM5	
	RAB29	
	HES4	
	EZR	
	RHBDL1	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	PRRT2	
	MYLK	
	ATP1B3	
	SLC46A1	
	FZD2	
	MC1R	
	CENPV	
	LOC729683	
	NRM	
	MCM4	
	ANPEP	
	LFNG	
	SIX4	
	KLF6	
	NETO2	
	GPR153	
	FOXP4	
	SPHK1	
	APOL2	
	BTG1	
	COMTD1	
	SCUBE3	
	SLC30A1	
	POLA2	
	TYRO3	
	NACAD	
	NR2C2AP	
	JMJD6	
	SLC25A19	
	LDLR	
	APOBEC3B	
	ARPIN	
	MCL1	
	KCNF1	
	SLC4A3	
	PHLDA1	
	CHCHD7	
	RASD1	
	CBR3	
	SEPT5	
	EAF1	
	RNASEH2A	
	CLN8	
	PRKARIA	
	ARMC9	
	ATP6V1B2	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	DAB2	
	MEDAG	
	PODXL	
	PLCD1	
	FAM111B	
	ADRA2A	
	PGRMC2	
	DIRAS1	
	UCN2	
	BMF	
	NEAT1	
	FAM98A	
	SLC27A3	
	LINC00341	
	PDGFC	
	RIOK2	
	KCTD20	
	PCK2	
	RRAD	
	CGA	
	SESN2	
	SH3BP5-AS1	
	FOS	
	MYCBP	
	TRIM68	
	HSPB2	
	MCM5	
	PGM3	
	COPRS	
	LZTS3	
	NR1D2	
	AARS	
	MMP14	
	HIP1R	
	IKBKE	
	XRCC3	
	PMP22	
	PITPNM1	
	FBXL18	
	SLC33A1	
	PPARD	
	PKMYT1	
	IFI16	
	ALDH3B1	
	GSN-AS1	
	CLN3	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	PHF19	
	CIQTNF9B-AS1	
	NUPR1	
	SEMA7A	
	RAB31L1	
	CACNB3	
	HAUS4	
	B3GALNT1	
	ECE1	
	PSMB9	
	BIRC2	
	C2CD2L	
	RGAG4	
	CEBPG	
	CASP6	
	STOM	
	ZNF526	
	LINC00622	
	GPR135	
	CCDC74B	
	AMIGO3	
	SKA1	
	JUN	
	CTGF	
	FAM43A	
	CDT1	
	APOL6	
	MT1E	
	TMEM200A	
	SORT1	
	KLHDC8B	
	FIGNL1	
	MAFK	
	KRT17	
	MOGS	
	GNPDA1	
	UBA7	
	TP53I3	
	INHBE	
	ABHD11	
	NOG	
	FOXL2NB	
	PTGER4	
	CEBPD	
	CLIC3	
	NUDT18	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	KIF26A	
	DBNDD2	
	SNN	
	TNFRSF14	
	HSPB7	
	EME2	
	SYVNI	
	MMP11	
	PRRX1	
	RNF24	
	LINC00936	
	SPC24	
	RFC4	
	STC1	
	PNP	
	TMEM120B	
	NFIX	
	EHD3	
	CCND1	
	CD274	
	CCDC142	
	FASN	
	EPHA2	
	PEG10	
	TIMP3	
	C16orf59	
	PTP4A1	
	ALDH1L2	
	SNX15	
	CIQTNF6	
	PTPN14	
	SEC23B	
	KMT2D	
	SAMD9L	
	MAPK11	
	RARG	
	HAND2	
	SOCS1	
	HMOX1	
	PLEKHA4	
	C10orf10	
	TLR4	
	LIPA	
	LINC00641	
	RM12	
	ENAH	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	NFATC4	
	CRLF1	
	MBD4	
	CYGB	
	PLAT	
	ZNF217	
	PIM3	
	ATP2B1	
	LACC1	
	TRIB3	
	KLHL17	
	LOC100288911	
	SDHAF1	
	LOC90784	
	OSGIN2	
	FES	
	PIK3R1	
	BMP2	
	NAMPT	
	NEXN	
	GK3P	
	RAC3	
	CBX2	
	TYSND1	
	PLOD2	
	CCDC14	
	COL7A1	
	TEAD2	
	RHOQ	
	GCLM	
	ERRFI1	
	FAM212A	
	MYLIP	
	ADAMTS10	
	RRAGC	
	CFL2	
	PPP1R3B	
	LOC100294145	
	CENPM	
	LRRC3	
	GPR37	
	CYB5D1	
	CBARP	
	ATF4	
	C1orf74	
	IGIP	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	SERPINE1	
	B4GALNT1	
	CHCHD10	
	GLUL	
	FDXR	
	PPP1R13L	
	CXCL8	
	FOXF1	
	DRAM1	
	TRIM22	
	E2F1	
	LYSMD4	
	FOXD2-AS1	
	KCTD15	
	GPC4	
	CAMK1G	
	ASAP3	
	HEY1	
	BTG2	
	TCEAL7	
	INSIG1	
	EGR2	
	EPHB6	
	ARHGEF2	
	RAP2B	
	EFNB2	
	ATP2A3	
	LOC100126784	
	TNFSF4	
	TVP23B	
	LBX2-AS1	
	FOXD1	
	CHAC1	
	NEMPI	
	LIME1	
	NSDHL	
	TAF13	
	LPP-AS2	
	TES	
	WNT5A	
	ZFP36L1	
	MIER2	
	KRT34	
	KDM6B	
	ATP13A3	
	PPP1R3G	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	ANGPTL2	
	PMAIP1	
	CLSPN	
	TPGS1	
	ANKRD9	
	DUSP23	
	ANKRD34A	
	CDKN1A	
	LMOD1	
	S100A4	
	TXNIP	
	STBD1	
	BRICD5	
	RASL11A	
	UBA6	
	KLF3	
	HIRIP3	
	TNFAIP6	
	TRIM59	
	TMEM86A	
	TMEM47	
	MTHFD2	
	AMIGO2	
	NFKBIA	
	LINC00998	
	CACFD1	
	FAM171A2	
	MIR34AHG	
	PIMI	
	TNFRSF1B	
	DNAJB9	
	PLEKHF1	
	GPSM3	
	ULBP2	
	IER5	
	SEPP1	
	ADAMTS1	
	TMEM119	
	HCP5	
	PCDHB4	
	GINS2	
	DANCR	
	CCNH	
	PSAT1	
	HMGCR	
	CIART	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	PTGS2	
	MTIL	
	LY6K	
	NUDT11	
	IFIT5	
	CALHM2	
	ACAA2	
	ATP1B1	
	COL18A1	
	LINC01003	
	DACT1	
	CBLN2	
	LRIG3	
	G0S2	
	BEND3P3	
	ASNS	
	TREX1	
	DIO2	
	PCNA	
	PPM1M	
	CSRP2	
	MEST	
	GLRX	
	PIK3IP1	
	DND1	
	XAF1	
	COMP	
	MITD1	
	PNRC1	
	CORO1A	
	GBP2	
	PTGER1	
	SLITRK4	
	ITPRIPL1	
	LOC101928433	
	ACKR3	
	LPCAT1	
	BEX1	
	ITGA6	
	KIAA1462	
	TCTEX1D4	
	ACTC1	
	TMEM190	
	SLC35F5	
	TWISTNB	
	GATSL3	

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Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	SLC25A15	
	FOXL1	
	MCRIP2	
	FAM63A	
	SLC16A6	
	HAS2	
	TMEM159	
	CCNG1	
	FOXS1	
	B3GALT4	
	CST2	
	ZEB1-AS1	
	FZD8	
	REN	
	COL15A1	
	NDRG1	
	LINC01279	
	SVBP	
	FAM26E	
	FAM198B	
	EME1	
	FIBIN	
	GEM	
	TYMS	
	ITGA3	
	LOC101927021	
	SLC17A9	
	RGS2	
	GPR162	
	TTC30B	
	CLEC14A	
	PTHLH	
	FGFBP3	
	FLJ42627	
	CDKN1C	
	DUSP4	
	TNFRSF18	
	KCNE4	
	CYP27A1	
	PTX3	
	MT1X	
	FZD10	
	GPR3	
	TRAM1L1	
	C8orf48	
	LOC339803	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	TRIM47	
	SCX	
	ZBTB14	
	FOSB	
	FZD1	
	EGFR	
	SMIM3	
	LIF	
	NPCI	
	SI00A3	
	TMEM158	
	FABP3	
	FST	
	PTGIR	
	HOXA5	
	CITED4	
	RCOR2	
	TUBA4A	
	LINC00565	
	SLC16A13	
	GRASP	
	TP53INP1	
	PRDMI	
	HIST2H2AC	
	GPR183	
	FAM46B	
	LOC101928120	
	TIPARP	
	IL24	
	LRRC32	
	KIAA0101	
	KLHL24	
	GDF15	
	SH3RF3-AS1	
	LOC102723703	
	DDIT3	
	GBP1	
	HMGCS1	
	LINC00260	
	SOX4	
	FLRT2	
	ID4	
	NR4A1	
	SC5D	
	GNB3	
	MBLAC1	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	PITXI	
	VGFB	
	RAMP1	
	SIAH1	
	IDI1	
	ACTL10	
	SLC7A11	
	CSRNPI	
	FOXQ1	
	CD27-AS1	
	CRACR2B	
	MAF	
	MVD	
	SCO2	
	F2RL2	
	DLL4	
	C11orf96	
	MSMO1	
	LINC00602	
	SSR4P1	
	UHRF1	
	IDI1	
	ADAMTS2	
	PPP1R18	
	OXER1	
	DACT3	
	LOC646903	
	HOXD4	
	LOC100128361	
	TNFAIP3	
	TNFSF15	
	ZBTB42	
	PVRIG2P	
	NATD1	
	KRTAP2-3	
	ID3	
	HLX	
	RGMB-AS1	
	PDCD4	
	FOXC2	
	NOP2	
	FDFT1	
	BTN3A3	
	FICD	
	PITPNA-AS1	
	ADAMTS4	

(Continued)

Supplementary Table SII Continued.

Genes uniquely regulated in eEC by SP	Genes uniquely regulated in eSF by SP	Genes regulated in eEC and eSF by SP
	REP15	
	ICAM1	
	SCARNA12	
	PARTICL	
	TMEM88	
	LIPT2	
	A1BG-AS1	
	MAFB	
	POP3	
	ZNF436-AS1	
	LOC644656	
	SNORD134	
	UFSP1	
	SLC40A1	
	PAN3-AS1	
	RASSF1-AS1	
	SCAMP1-AS1	
	CCL2	
	CXCL1	
	LOC105274304	
	NPW	
	BDKRB2	
	TM7SF2	
	GADD45G	
	SIPRI	
	CEMIP	
	JMJD1C-AS1	
	TMEM215	
	DDIT4	
	CDR1	
	LOC100131315	
	ATP2A1-AS1	
	AGPAT4-IT1	
	HOXB5	
	PLAU	
	C3orf80	
	LOC101927727	
	SNX22	
	THBD	
	CXCR4	