

Supplementary Table 1. Upregulated genes in end-stage renal disease iPSC-ECs vs. normal iPSC-ECs

Gene accession	Gene symbol	Gene description	Fold change
NM_005951	<i>MT1H</i>	Metallothionein 1H	27
NM_001127255	<i>NLRP7</i>	NLR family, pyrin domain-containing 7	25.2
NR_029858	<i>MIR302C</i>	MicroRNA 302c	23.3
NM_199286	<i>DPPA3</i>	Developmental pluripotency-associated 3	20.5
NM_001301267	<i>MT1G</i>	Metallothionein 1G	20.4
NR_027122	<i>ESRG</i>	Embryonic stem cell-elated (nonprotein coding)	18.9
NR_038340	<i>LOC100505817</i>	Uncharacterized LOC100505817	16.2
NM_001164835	<i>L1TD1</i>	LINE-1 type transposase domain-containing 1	14.5
NM_001048164	<i>SLC7A3</i>	Solute carrier family 7 (cationic amino acid transporter, y+ system), member 3	14.4
NM_001242680	<i>ZNF729</i>	Zinc finger protein 729	12.5
NM_024504	<i>PRDM14</i>	PR domain-containing 14	11.2
NM_024674	<i>LIN28A</i>	Lin-28 homolog A (<i>Caenorhabditis elegans</i>)	9.8
NM_180991	<i>SLCO4C1</i>	Solute carrier organic anion transporter family, member 4C1	9.5
NM_001289123	<i>TUBB4A</i>	Tubulin, beta 4A class IVa	9.2
NM_020634	<i>GDF3</i>	Growth differentiation factor 3	9
NM_001146728	<i>HRASLS5</i>	HRAS-like suppressor family, member 5	8.9
NM_013369	<i>DNMT3L</i>	DNA (cytosine-5)-methyltransferase 3-like	8.9
NM_001308491	<i>ERVH48-1</i>	Endogenous retrovirus group 48, member 1	8.5
NM_001034915	<i>ESRP1</i>	Epithelial-splicing regulatory protein 1	8.5
NM_006183	<i>NTS</i>	Neurotensin	8.3
NM_002354	<i>EPCAM</i>	Epithelial cell adhesion molecule	8.1
NM_005325	<i>HIST1H1A</i>	Histone cluster 1, H1a	8
NR_125920	<i>LOC101929194</i>	Uncharacterized LOC101929194	7.9
NM_016323	<i>HERC5</i>	HECT and RLD domain-containing E3 ubiquitin protein ligase 5	7.8
NM_000170	<i>GLDC</i>	Glycine dehydrogenase (decarboxylating)	7.7
NM_054023	<i>SCGB3A2</i>	Secretoglobulin, family 3A, member 2	7.1
NR_036440	<i>POU5F1P3</i>	POU class 5 homeobox 1 pseudogene 3	6.7
NM_001039111	<i>TRIM71</i>	Tripartite motif-containing 71, E3 ubiquitin protein ligase	6.7
NM_007153	<i>ZNF208</i>	Zinc finger protein 208	6.6
NM_001304358	<i>ZFP42</i>	ZFP42 zinc finger protein	6.5
NM_017831	<i>RNF125</i>	Ring finger protein 125, E3 ubiquitin protein ligase	6.4
NM_001297550	<i>APELA</i>	Apelin receptor early endogenous ligand	6.1
NM_018189	<i>DPPA4</i>	Developmental pluripotency-associated 4	6.1
NM_033468	<i>ZNF257</i>	Zinc finger protein 257	5.7
NM_004360	<i>CDH1</i>	Cadherin 1, type 1	5.5
NR_029857	<i>MIR302B</i>	MicroRNA 302b	5.5
NM_004929	<i>CALB1</i>	Calbindin 1	5.4
NM_003106	<i>SOX2</i>	SRY box 2	5.4
NR_029859	<i>MIR302D</i>	MicroRNA 302d	5
NM_000735	<i>CGA</i>	Glycoprotein hormones, alpha polypeptide	4.9
NM_173814	<i>PRTG</i>	Protogenin	4.9
NM_001278546	<i>NR6A1</i>	Nuclear receptor subfamily 6, group A, member 1	4.8
NM_001270927	<i>IFIT1</i>	Interferon-induced protein with tetratricopeptide repeats 1	4.7
NR_104652	<i>LOC100506790</i>	Uncharacterized LOC100506790	4.7
NM_001207055	<i>DNMT3B</i>	DNA (cytosine-5)-methyltransferase 3 beta	4.7
NM_020436	<i>SALL4</i>	Spalt-like transcription factor 4	4.5
NM_003013	<i>SFRP2</i>	Secreted frizzled-related protein 2	4.5
NM_000860	<i>HPGD</i>	Hydroxyprostaglandin dehydrogenase 15-(NAD)	4.5
NM_001160100	<i>CLDN10</i>	Claudin 10	4.5
NM_016139	<i>CHCHD2</i>	Coiled-coil-helix-coiled-coil-helix domain-containing 2	4.5
NM_001174081	<i>NLRP2</i>	NLR family, pyrin domain-containing 2	4.4

(Continued to the next page)

Supplementary Table 1. Continued

Gene accession	Gene symbol	Gene description	Fold change
NM_024829	<i>PLBD1</i>	Phospholipase B domain-containing 1	4.3
NR_003221	<i>SNORD114-28</i>	Small nucleolar RNA, C/D box 114-28	4.3
NM_001278736	<i>CCL5</i>	Chemokine (C-C motif) ligand 5	4.2
NR_110115	<i>LOC101927746</i>	Uncharacterized LOC101927746	4.1
NR_002922	<i>SNORA13</i>	small nucleolar RNA, H/ACA box 13	4.1
NM_182700	<i>SP8</i>	Sp8 transcription factor	4
NM_001547	<i>IFIT2</i>	Interferon-induced protein with tetratricopeptide repeats 2	4
NR_029835	<i>MIR302A</i>	MicroRNA 302a	3.9
NM_001185022	<i>CLDN7</i>	Claudin 7	3.8
NM_002927	<i>RGS13</i>	Regulator of G-protein signaling 13	3.8
NM_001300780	<i>SEMA6A</i>	Sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A	3.8
NM_007138	<i>ZNF90</i>	Zinc finger protein 90	3.8
NM_030625	<i>TET1</i>	Tet methylcytosine dioxygenase 1	3.7
NM_001128203	<i>PLA2G16</i>	Phospholipase A2, group XVI	3.7
NM_006142	<i>SFN</i>	Stratifin	3.7
NM_001190463	<i>CTH</i>	Cystathionine gamma-lyase	3.7
NM_001301062	<i>ZNF114</i>	Zinc finger protein 114	3.6
NM_001031683	<i>IFIT3</i>	Interferon-induced protein with tetratricopeptide repeats 3	3.6
NM_003468	<i>FZD5</i>	Frizzled class receptor 5	3.5
NR_036455	<i>ZNF826P</i>	Zinc finger protein 826, pseudogene	3.5
NM_001160226	<i>CNR1</i>	Cannabinoid receptor 1 (brain)	3.5
NR_003079	<i>SNORD111</i>	Small nucleolar RNA, C/D box 111	3.2
NM_000478	<i>ALPL</i>	Alkaline phosphatase, liver/bone/kidney	3.2
NR_003213	<i>SNORD114-20</i>	Small nucleolar RNA, C/D box 114-20	3.2
NM_001565	<i>CXCL10</i>	Chemokine (C-X-C motif) ligand 10	3.2
NM_080872	<i>UNC5D</i>	Unc-5 netrin receptor D	3.2
NM_015566	<i>FAM169A</i>	Family with sequence similarity 169, member A	3.2
NM_000582	<i>SPP1</i>	Secreted phosphoprotein 1	3.2
NR_027238	<i>LOC654342</i>	Lymphocyte-specific protein 1 pseudogene	3.1
NM_001267036	<i>SLC7A8</i>	Solute carrier family 7 (amino acid transporter light chain, L system), member 8	3.1
NM_001290046	<i>CECR2</i>	Cat eye syndrome chromosome region, candidate 2	3.1
NR_003204	<i>SNORD114-11</i>	Small nucleolar RNA, C/D box 114-11	3.1
NM_001882	<i>CRHBP</i>	Corticotropin-releasing hormone-binding protein	3.1
NM_005559	<i>LAMA1</i>	Laminin, alpha 1	3.1
NR_003218	<i>SNORD114-25</i>	Small nucleolar RNA, C/D box 114-25	3
NM_032229	<i>SLITRK6</i>	SLIT and NTRK-like family, member 6	3
NM_002038	<i>IFI6</i>	Interferon, alpha-inducible protein 6	3
NM_001252	<i>CD70</i>	CD70 molecule	3
NM_001201575	<i>CTSV</i>	Cathepsin V	3
NM_002298	<i>LCP1</i>	Lymphocyte cytosolic protein 1 (L-plastin)	3
NR_023358	<i>SCARNA9L</i>	Small Cajal body-specific RNA 9-like	2.9
NM_018476	<i>BEX1</i>	Brain-expressed X-linked 1	2.9
NM_002483	<i>CEACAM6</i>	Carcinoembryonic antigen-related cell adhesion molecule 6 (nonspecific cross-reacting antigen)	2.9
NM_017412	<i>FZD3</i>	Frizzled class receptor 3	2.9
NM_001144003	<i>SLITRK2</i>	SLIT and NTRK-like family, member 2	2.8
NM_022168	<i>IFIH1</i>	Interferon-induced, with helicase C domain 1	2.8
NM_001010874	<i>TECRL</i>	Trans-2,3-enoyl-CoA reductase-like	2.8
NR_003214	<i>SNORD114-21</i>	Small nucleolar RNA, C/D box 114-21	2.7

(Continued to the next page)

Supplementary Table 1. Continued

Gene accession	Gene symbol	Gene description	Fold change
NM_004522	<i>KIF5C</i>	Kinesin family member 5C	2.7
NM_001029858	<i>SLC35F1</i>	Solute carrier family 35, member F1	2.7
NM_053002	<i>MED12L</i>	Mediator complex subunit 12-like	2.7
NM_006089	<i>SCML2</i>	Sex comb on midleg-like 2 (drosophila)	2.6
ENST00000392653	<i>SPRR2A</i>	Small proline-rich protein 2A	2.6
NM_001038603	<i>MARVELD2</i>	MARVEL domain-containing 2	2.6
NR_003201	<i>SNORD114-9</i>	Small nucleolar RNA, C/D box 114-9	2.6
NM_000115	<i>EDNRB</i>	Endothelin receptor type B	2.6
NM_006417	<i>IFI44</i>	Interferon-induced protein 44	2.5
NM_001135649	<i>FOXI3</i>	Forkhead box I3	2.5
NR_003206	<i>SNORD114-13</i>	Small nucleolar RNA, C/D box 114-13	2.5
NM_001278000	<i>LPAR4</i>	Lysophosphatidic acid receptor 4	2.5
NM_052941	<i>GBP4</i>	Guanylate-binding protein 4	2.5
NR_003693	<i>SNORD126</i>	Small nucleolar RNA, C/D box 126	2.5
NM_001308275	<i>LG1</i>	Leucine-rich, glioma inactivated 1	2.4
NM_024870	<i>PREX2</i>	Phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 2	2.4
NM_000689	<i>ALDH1A1</i>	Aldehyde dehydrogenase 1 family, member A1	2.4
NM_006820	<i>IFI44L</i>	Interferon-induced protein 44-like	2.4
NM_001308154	<i>RAB15</i>	RAB15, member RAS oncogene family	2.3
NM_021195	<i>CLDN6</i>	Claudin 6	2.3
NM_001191055	<i>ERVV-2</i>	Endogenous retrovirus group V, member 2	2.3
NM_001142535	<i>LGALS12</i>	Lectin, galactoside-binding, soluble, 12	2.2
NR_003058	<i>SNORD70</i>	Small nucleolar RNA, C/D box 70	2.2
NR_003341	<i>SNORD116-27</i>	Small nucleolar RNA, C/D box 116-27	2.2
NM_001288629	<i>EPHA7</i>	EPH receptor A7	2.2
NM_001561	<i>TNFRSF9</i>	Tumor necrosis factor receptor superfamily, member 9	2.1
NR_000025	<i>SNORD15B</i>	Small nucleolar RNA, C/D box 15B	2.1
NM_001448	<i>GPC4</i>	Glypican 4	2
NR_110178	<i>SNHG24</i>	Small nucleolar RNA host gene 24	2
NM_032119	<i>ADGRV1</i>	Adhesion G-protein-coupled receptor V1	2
NR_003208	<i>SNORD114-15</i>	Small nucleolar RNA, C/D box 114-15	2
NM_080740	<i>ZNF280A</i>	Zinc finger protein 280A	2
NM_001260489	<i>LSR</i>	Lipolysis-stimulated lipoprotein receptor	2
NM_001711	<i>BGN</i>	Biglycan	2
NR_003340	<i>SNORD116-26</i>	Small nucleolar RNA, C/D box 116-26	2
NR_003232	<i>SNORD113-4</i>	Small nucleolar RNA, C/D box 113-4	1.9
NR_003194	<i>SNORD114-2</i>	Small nucleolar RNA, C/D box 114-2	1.9
NM_015429	<i>ABI3BP</i>	ABI family, member 3 (NESH)-binding protein	1.8
NM_001014450	<i>SPRR2F</i>	Small proline-rich protein 2F	1.7
NR_003229	<i>SNORD113-1</i>	Small nucleolar RNA, C/D box 113-1	1.7
NR_047032	<i>SNORD116-30</i>	Small nucleolar RNA, C/D box 116-30	1.7
NM_001040708	<i>HEY1</i>	Hes-related family bHLH transcription factor with YRPW motif 1	1.7
NM_001032731	<i>OAS2</i>	2-5-oligoadenylate synthetase 2	1.7
NR_000024	<i>SNORD46</i>	Small nucleolar RNA, C/D box 46	1.7
NM_003533	<i>HIST1H3I</i>	Histone cluster 1, H3i	1.7
NM_004335	<i>BST2</i>	Bone marrow stromal cell antigen 2	1.6
NM_014729	<i>TOX</i>	Thymocyte selection-associated high mobility group box	1.6
NM_001253900	<i>MEST</i>	Mesoderm specific transcript	1.5
NR046473	<i>MEG3</i>	Maternally expressed 3 (nonprotein coding)	1.5

EC, endothelial cell; iPSC, induced pluripotent stem cell.