

Generation of kidney tubular organoids from human pluripotent stem cells

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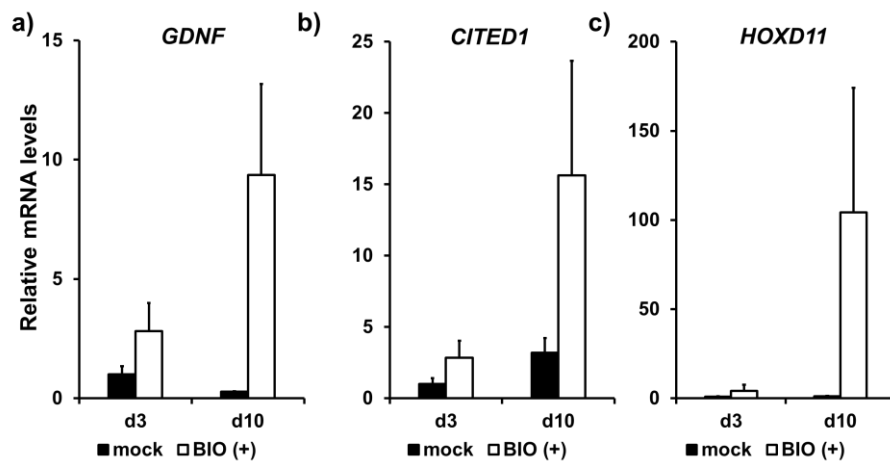
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Figure legends

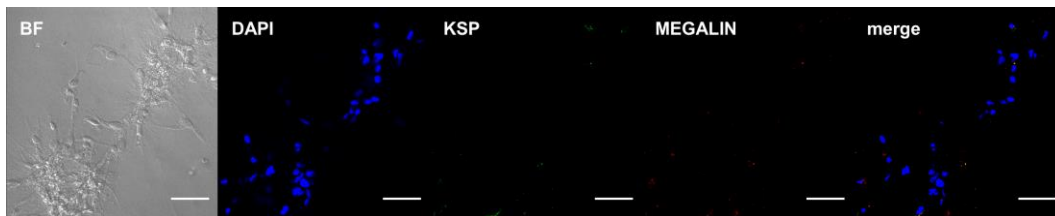
Supplemental Figure 1. The expressions of nephron progenitor markers in hESCs.

a-c) Quantitative evaluation of gene expression of nephron progenitor markers (*GDNF*, *CITED1*, *HOXD11*) on day 3 and 10 of differentiation. Transcript expression levels were normalized to *GAPDH* (n =3). Values shown are the means \pm SEM.



Supplemental Figure 2. Structures generated by KSP negative cells in 3D Matrigel.

KSP negative/TRA1-60 negative cells purified by flow cytometry after 10 d of differentiation were transferred onto Matrigel and cultured for 24h. KSP negative cells formed petal-like structures which were negative for KSP and MEGALIN expression. Scale bars; 50 μ m.



Supplemental Figure 3.

Primers for quantitative Real-Time. PCR, polymerase chain reaction.

Gene		Sequence
<i>OCT3/4</i>	Forward	TGA AGC TGG AGA AGG AGA AGC TG
	Reverse	GCA GAT GGT CGT TTG GCT GA
<i>BRACHYURY</i>	Forward	GAC AGG TAC CCA ACC CTG AGG
	Reverse	AGC ATG GAT AAA CAT GCA GGT GAG
<i>PAX2</i>	Forward	TGT CAG CAA AAT CCT GGG CAG
	Reverse	GTC GGG TTC TGT CGT TTG TAT T
<i>OSR1</i>	Forward	AGA GTC CTG GAC TGG CAG AAT C
	Reverse	AGA CCA CAG ATA TAT TCA CTC CAA AGA G
<i>WT-1</i>	Forward	CAC AGC ACA GGG TAC GAG AG
	Reverse	CAA GAG TCG GGG CTA CTC CA
<i>KSP</i>	Forward	CAT CCT TGT AGG CAC CCT GGT AG
	Reverse	TGA CAT GGT CCA GTG GGT GAA
<i>MEGALIN</i>	Forward	GGC CTG CTA TAA CAC CAG TCA
	Reverse	ACT CAT TGT GCA AGC ATA TCT CA
<i>AQP 1</i>	Forward	TAA CCC TGC TCG GTC CTT TG
	Reverse	AGT CGT AGA TGA GTA CAG CCA G
<i>AQP 2</i>	Forward	GCT CCG CTC CAT AGC CTT C
	Reverse	GGG TGC CAA TAC CCA AGC C
<i>PAX6</i>	Forward	TGGGCAGGTATTACGAGACTG
	Reverse	ACTCCCGCTTATACTGGGCTA
<i>NKX2.5</i>	Forward	CCAAGGACCCTAGAGCCGAA
	Reverse	ATAGGCGGGGTAGGCGTTAT
<i>GGT</i>	Forward	TGAGCCCAGAAGTGAGAGCAGTTG
	Reverse	ATGTCCACCAGCTCAGAGAGGGT
<i>CD13</i>	Forward	GACCAAAGTAAAGCGTGGAATCG
	Reverse	TCTCAGCGTCACCCGGTAG
<i>ATP1B1</i>	Forward	CCGGTGGCAGTTGGTTTAAGA
	Reverse	GCATCACTTGGATGGTTCCGA
<i>SGLT1</i>	Forward	TACCTGAGGAAGCGGTTTGA
	Reverse	CGAGAAGATGTCTGCCGAGA
<i>UROMODULIN</i>	Forward	CGGCGGCTACTACGTCTAC
	Reverse	GTCTGTGCAGTACGCCAGG
<i>SLC12A3</i>	Forward	CCTGGGTGGAGACCTTCATTC
	Reverse	GAGCCCCAATTTACCTCTGGC
<i>GNDF</i>	Forward	GGCAGTGCTTCCTAGAAGAGA
	Reverse	AAGACACAACCCCGGTTTTTG
<i>CITED1</i>	Forward	CCTCACCTGCGAAGGAGGA
	Reverse	GGAGAGCCTATTGGAGATCCC
<i>HOXD11</i>	Forward	AAAAAGCGCTGTCCCTATACCA
	Reverse	TGAGGTTGAGCATCCGAGAGA
<i>GAPDH</i>	Forward	GTC AGT GGT GGA CCT GAC CT
	Reverse	AGG GGT CTA CAT GGC AAC TG